

OPERATIONAL CONTROL OF
GLOBAL AIRPOWER

BY
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DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the U.S. Government, Department of Defense, the United States Air Force, or Air University.

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ABSTRACT

This thesis examines operational control of bombers stationed in the United States but employed halfway around the world. When a contingency arises, operational control should be clear-cut from the beginning. Air Force doctrine concerning command and control is easily understood for assets that deploy into a theater. The mere issue of proximity to the commander makes control seem somewhat less confusing. However, when bombers generate under one combatant commander and execute their mission under the operational control of another combatant commander, the timing of when one commander relinquishes control and the other commander gains control is questionable. The study focuses on historic examples of bomber operational control and legislative influences to operational control. Determining when to change operational control comes down to identifying which combatant command has the mission that requires operational control and when CONUS bombers are ready for sustained operations under that command.

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Chapter 1

Introduction

Long-range operations require clear lines of authority and the means to control aerospace forces across multiple theaters and major commands.

Air Force Doctrine Document 2-1.2, Strategic Attack

The Question

An aircraft takes off from the continental United States, flies to the other side of the world to deliver its payload, and then returns to the United States without ever touching the ground. Who is in command of the aircraft? Who is in control of the aircraft? When considering the lowest level of command and control for a sortie of this magnitude, the answer is clear. The aircraft commander is both in command and in control. However, at the higher levels, defining who commands and who controls during a globe-girdling mission becomes a difficult and confusing task.

Joint and Air Force doctrines, drawing from United States Code, Title 10, define the command relationships between the Armed Services that provide warfighting forces and the combatant commanders that use those forces. Typically, transfer of command and control of forces to the warfighting commander is seamless. Combat forces move from their permanent geographic location to the warfighting commander's area of responsibility (AOR) simultaneously with the transfer of command and control. While this transfer is seamless for forces that take up residence in a combatant commander's AOR, the situation is problematic for forces only passing through an AOR.

Currently, there is considerable pushing and pulling among powerful forces concerning when or if operational control of bombers employing from the United States should be transferred from United States Joint Forces Command (USJFCOM) to the Commander of the unified command in whose AOR the bomber will operate. Air Force doctrine declares that the transfer of operational control should occur no later than

takeoff.¹ The Joint Force Air Component Commander's (JFACC) Handbook indicates transfer should occur as early as sortie generation.² In addition, Air Combat Command's (ACC) Bomber Concept of Operations, currently in draft form, favors the supporting commander maintaining operational control until the asset crosses a geographic boundary associated with the supported commander's AOR.³ Once the aircraft crosses back over the geographic boundary, operational control would transfer back to ACC. Thus, a serious question surrounds the operational control of bombers employed from the United States, with at least three different options on the table.

Significance of the Issue

As global-strike missions become more prevalent, the command relationship between the combatant commander providing long-range strike assets and the combatant commander being supported must be clearly understood from the beginning of operations. One commander should have overall authority to control all military operations within the theater. Likewise, operational control of all air assets should meet the needs of both the force-providing and warfighting commanders. Clear and concise command authority will provide effective and efficient planning and execution of theater operations.

When a contingency arises, operational control should be clear-cut from the beginning. Air Force doctrine concerning command and control is easily understood for assets that deploy into a theater. The mere issue of proximity to the commander makes control seem somewhat less confusing. However, when assets generate under one combatant commander and execute their mission under the operational control of another combatant commander, the timing of when one commander relinquishes control and the other commander gains control is questionable. This is not to say that doctrine needs to be modified, though that may be the case. More important, doctrine should eliminate as

¹ Air Force Doctrine Document (AFDD) 2, *Organization and Employment of Aerospace Power*, 17 February 2000, 45.

² Air Force Doctrine Center, "Aerospace Commander's Handbook for the JFACC," 27 June 2001, 21, *Aerospace Commander's Handbook for the JFACC*, CD-ROM, Air Force Doctrine Center, 1 November 2001.

³ Air Combat Command, *Concept of Operations for Conventional Bomber Employment Draft*, 1 December 2001, 35.

many questions as possible when time is of the essence. Though it sometimes occurs unavoidably in practice, command relationships should not be ad hoc in design. The time required to determine the best command relationship for the situation could be better spent on planning operations. The supporting commander must have a clear understanding of what the supported commander requires. The supporting commander may still have an operational mission to perform while providing forces to another commander's AOR. In the case of USJFCOM, it must continue training and preparing for other global contingencies with the assets left under their control in the United States. When assets deploy to a theater, the supporting commander has a clear picture of the assets that remain. However, for assets that do not deploy, there must be a clear statement of the force or capability to be provided to the supported commander. Otherwise, the supported commander might have a tendency to seek more aircraft than normal, knowing that a greater number exists. The goal is to allow both commanders to perform their missions effectively with a given number of assets.

Professor I. B. Holley sums up the need to ensure doctrine relating to command and control of long-range strike assets stays in-step with the demonstrated capabilities of the assets.

Superiority in weapons stems not only from the selections of the best ideas from advancing technology but also from a system which relates the ideas selected with a doctrine or concept of their tactical or strategic application, which is to say the accepted concept of the mission to be performed by any given weapon.⁴

Background

Joint doctrine defines command as the authority and responsibility to employ, organize, direct, coordinate, and control military forces to accomplish an assigned mission.⁵ Control, on the other hand, is a commander's authority over part of an

⁴ I. B. Holley, *Ideas and Weapons* (1953; reprint, Washington D.C.: U.S. Government Printing Office, 1983), 14.

⁵ The authority that a commander in the Armed Forces lawfully exercises over subordinates by virtue of rank or assignment. Command includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating, and controlling military forces for the accomplishment of assigned missions. It also includes responsibility for health, welfare,

organization that may be less than full command.⁶ Obviously, if one has “command,” then one has very broad authority and responsibility. However, if one only has control, authority and responsibility is stipulated in the kind of control authority possessed. Of particular importance to this study is operational control or OPCON.

Operational control is a command authority to organize and employ forces, assign tasks, designate objectives, and give directions necessary to accomplish the mission.⁷ Operational control only exists under the chain of command of combatant commanders. This is an important distinction since the term operational control is viewed very broadly at times. In the context of this study, operational control or OPCON is a command authority exercised by a combatant commander, or below if so delegated, over forces *assigned* or *attached* to the combatant command.

The question of when or if to change operational control of bombers becomes an issue of which commander has the mission of greater importance. For example, the Strategic Air Command (SAC) was a “specified” combatant command and had operational control of a large fleet of intercontinental bombers. During the Vietnam War, SAC was reluctant to relinquish control due to its nuclear mission.⁸ When SAC stood down and bombers joined the fighter world in the newly formed ACC, the issue of mission priority changed. The issue became when, rather than if, operational control should be transferred to the warfighting commander.

morale, and discipline of assigned personnel. Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 12 April 2001, 79.

⁶ Control: Authority that may be less than full command exercised by a commander over part of the activities of subordinate or other organizations. JP 1-02, 95.

⁷ Transferable command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority). Operational control may be delegated and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders and Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions. Operational control does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. JP 1-02, 310.

⁸ A specified command contains forces from just one Service while a unified command contains forces from two or more Services. JP 1-02, 398, 446.

Operational control of long-range bombers has been a challenging issue for a considerable time. Controversy occurred in World War II when General Hap Arnold, sitting in Washington D.C., maintained control of the B-29s operating in the Pacific Theater.⁹ Likewise, SAC created friction for commanders in Vietnam by requiring close control of the B-52s used in Southeast Asia.¹⁰ At the end of the Cold War, SAC allowed complete operational control of deployed B-52s to pass to United States Central Command (USCENTCOM) to help drive Iraqi forces from Kuwait during Desert Storm.¹¹ The ultimate in operational control of long-range strike assets came when United States European Command (USEUCOM) had operational control of B-2s flying sustained round-trip missions out of the United States during Operation ALLIED FORCE.¹²

Operational control of bombers and future long-range strike assets will be an even greater problem as more missions are tasked to employ directly from the United States against targets in all parts of the globe. Due to growing anti-access policies, by friend and foe, combatant commanders may not have access to bases within their area of responsibility.¹³ This may force them to employ bombers from the United States until forward basing is available. Likewise, the Global Response Task Force (GRTF) concept envisions using long-range air power to strike globally in minimum time. This concept may further blur the distinction of when operational control should transfer between commanders since the global-mission response time requirement will likely require tighter control of assets.

Analytical Criteria and Methodology

Before answering the question of when should operational control be relinquished by one commander and assumed by another, the question of “if” must first be answered.

⁹ H. H. Arnold, *Global Mission* (New York, N.Y.: Harper & Brothers, Publishers, 1949), 348.

¹⁰ William W. Momyer, General, USAF, Ret., *Airpower in Three Wars*, (1978), 99.

¹¹ Eliot A. Cohen et al., *Gulf War Air Power Survey*, vol. 1, *Planning and Command and Control* (Washington D.C.: U.S. Government Printing Office, 1993), [186](#).

¹² Benjamin S. Lambeth, *NATO's Air War for Kosovo, A Strategic and Operational Assessment* (RAND Publishing, 2001), 207-209.

¹³ John P. Jumper, General, USAF, “Global Strike Task Force, A Transforming Concept, Forged by Experience,” *Aerospace Power Journal*, Spring 2001, 28.

A review of historical operations provides insight into the actual command and control of bombers. A study of bombers dating back to World War II indicates that the principle of *Unity of Command* was not always followed. Some of the organizational elements that influenced command and control decisions provide insight into other factors that drive the issue of control. However, lessons learned from historical operational control of bombers provide a basis for evaluating current and future command and control.

A second area of focus is legal requirements for operational control. Statutory and doctrinal sources provide the foundation for examining operational control authority. United States Code, Title 10, provides the statutory authority given to the combatant commanders as well as the Air Force's responsibility. Title 10 embodies the National Security Act of 1947 through the Goldwater-Nichols act of 1986. Joint doctrine further defines the command relationship between the combatant commanders and Service components such as the Air Force. Finally, Air Force doctrine provides the air-centric aspect of command and control.

Assumptions and Limitations

This discussion is limited to the broadest issue of command and control and avoids in-depth discussion of the technical aspects. The technical aspects of command and control include the workings of an air operations center (AOC), long-range communication, and real-time direction. Numerous advancements in technology enable both forward and rear commanders to exercise control of long-range assets. The question of this thesis is "when should one commander relinquish and another commander gain operational control," rather than "how should they control."

Finally, this research is limited to U.S. long-range assets, specifically bombers assigned to United States Joint Forces Command. Although the U.S. Navy has its own unique operational control issues, this discussion is limited to the Air Force to avoid a fallacy of unlike comparisons. Other Air Force global assets, such as airlift, space, and strategic forces, are touched upon in a general sense, but thorough treatment and analysis is beyond the scope of this paper.

What to Expect

The second chapter examines issues relating to the use of bombers from World War II to the present day. This examination traces how operational control of bombers until recently was guided by strategic nuclear imperatives.

The third chapter provides a historical overview of the applicable legislation from the National Security Act of 1947 through the Goldwater-Nichols Act of 1986. This chapter demonstrates how operational control is tied to the mission given by the President, through the Secretary of Defense. The chapter also highlights the numerous command authorities resulting from this legislation, which would lead to confusion concerning operational control.

The fourth chapter addresses the current unified command structure and issues that stem from the authority provided to the combatant commanders by Goldwater-Nichols legislation. In addition, an examination of USJFCOM's mission provides insight as to when they exercise operational control of bombers.

The fifth chapter ties all the research together and provides recommendations for when control of bombers should transfer between combatant commanders. The chapter also provides doctrinal recommendations to eliminate some of the questions surrounding bomber command and control.

Chapter 2

A Short History of Bomber Operational Control

THE INHERENT FLEXIBILITY OF AIR POWER, IS ITS GREATEST ASSET. THE FLEXIBILITY MAKES IT POSSIBLE TO EMPLOY THE WHOLE WEIGHT OF THE AVAILABLE AIR POWER AGAINST SELECTED AREAS IN TURN; SUCH CONCENTRATED USE OF THE AIR STRIKING FORCE IS A BATTLE WINNING FACTOR OF THE FIRST IMPORTANCE. CONTROL OF AVAILABLE AIR POWER MUST BE CENTRALIZED AND COMMAND MUST BE EXERCISED THROUGH THE AIR FORCE COMMANDER IF THIS INHERENT FLEXIBILITY AND ABILITY TO DELIVER A DECISIVE BLOW ARE TO BE FULLY EXPLOITED. THEREFORE, THE COMMAND OF AIR AND GROUND FORCES IN A THEATER OF OPERATIONS WILL BE VESTED IN THE SUPERIOR COMMANDER CHARGED WITH THE ACTUAL CONDUCT OF OPERATIONS IN THE THEATER, WHO WILL EXERCISE COMMAND OF AIR FORCES THROUGH THE AIR FORCE COMMANDER AND COMMAND OF GROUND FORCES THROUGH THE GROUND FORCE COMMANDER. (Original emphasis)

FM 100-20, 21 July 1943

World War II: European Theater

In March of 1942, under the War Department Chief of Staff, the Army Air Force (AAF) became organizationally separated from the Army Ground Forces for training and supply, in effect making it a service-level equivalent for these functions.¹⁴ The AAF was tasked “to procure and maintain equipment peculiar to the Army Air Forces and to provide air force units properly organized, trained and equipped for combat operations.¹⁵ Still, it did not achieve parity with the Army in the critical role of combat operations, and this proved to be a subordinating organizational factor. Until it had an independent combat mission, the AAF would remain a combat arm of the Army. Strategic bombing was to become the mechanism by which the AAF would increase its status, and ultimately become a separate service on equal footing with the Army and Navy.

¹⁴ Wesley Frank Craven and James Lea Cate, eds., *The Army Air Forces In World War II*, vol. 1, *Plans and Early Operations, January 1939 to August 1942* (Chicago, Il.: The University of Chicago Press, 1948), 251-267.

¹⁵ *Ibid.*, 264.

Strategic bombing theory dominated the interwar period and became the earliest means for taking the war immediately to Germany. This theory was reflected in Air War Plans Directives (AWPD)-1, developed before U.S. entry into the war, and AWPD-42 developed in September 1942. B-17 and B-24 heavy bombers were initially assigned to Eighth Bomber Command under Eighth Air Force (8AF) upon deploying to England. Major General Tooe Spatz was made Commander of 8AF with General Ira C. Eaker commanding 8th Bomber Command. However, before operations could get under way, 8AF was divided to provide aircraft to newly established Twelfth Air Force for Operation Torch (the invasion of North Africa).

One of the first orders of business for General Henry “Hap” Arnold, Chief of Staff of the Army Air Corps, when the ETO was established on 8 June 1942 was to solidify Spatz as the senior airman in theater. Although Spatz received instructions from Arnold authorizing direct correspondence between him and Arnold, Eisenhower, as U.S. commander ETO, provided the real directive under which the AAF would operate in theater. All air units were to be integrated into the Eighth Air Force. In addition, Eisenhower directed that strategic control of AAF operations, vested in the British government, should “be construed to mean general strategic directive as to the purpose of broad objectives,” but it was not to include “designation of targets or tactical control of operations.”¹⁶ Arnold, anxious that the AAF be properly represented in planning at the theater level, wrote Spatz on July 30, 1942, “In connection with planning, I would like to have you see Eisenhower and get him to accept your headquarters as his air planning unit. Get him to use you in that way, as he is the head of all US Army Forces in Europe. I want him to recognize you as the top airman in all Europe.”¹⁷ On 21 August 1942, Spatz was made Air Officer for European Theater of Operations United States Army (ETOUSA) and head of the air section of its staff. Even so, the British maintained a dominant voice in U.S. strategic operations.

The Casablanca Conference in January of 1943 established a key point concerning U.S. bombers engaged in the combined bomber offensive (CBO). The offensive was directed against Germany and occupied Europe with the ultimate goal of

¹⁶ Ibid., 590.

¹⁷ Ibid., 590-591.

dislocation of the German military, industrial and economic system, and the undermining of the morale of the German people.¹⁸ British bombers would bomb by night while U.S. bombers would pursue precision daylight bombing.¹⁹ A keynote of U.S. policy in the Casablanca Directive was the control American commanders had over the method of employment for the bomber offensive.²⁰ It was agreed that control of bomber operations conducted by the U.S. air forces in the United Kingdom would be in the hands of the British as a “matter of command rather than agreement with the U.S. Commanders.”²¹ However, U.S. Commanders would determine the “technique and method for U.S. bombers to be employed.” The responsibility for the combined bombardment operations for the remainder of 1943 fell upon the Chief of British Air Staff, Sir Charles Portal, as agent of the Combined Chiefs of Staff for the CBO, which did little to elevate the status of Eighth Air Force.²²

Following the fall of Axis powers in North Africa and Italy, the United States Strategic Air Forces (USSTAF) in Europe was established to consolidate all U.S. strategic bombing efforts.²³ Before the CBO started operations in June 1943, Eighth Air Force was involved only in limited operations because so many of its aircraft were committed to the North African campaign. From June 1943 until the USSTAF was established, 8AF gained aircraft but not success due to limited fighter escort capabilities. In November of 1943, Eisenhower announced the activation of Fifteenth Air Force, which would draw many of its heavy bombers from Twelfth Air Force, which was becoming more involved in tactical operations. Spaatz had been designated Commander of Army Air Forces for the entire theater and was named Commander of USSTAF. He in turn named Major General James H. Doolittle as commander of Eighth Air Force with Major General Nathan Twining as commander of Fifteenth Air Force.²⁴ Arnold and other AAF leaders had pushed for an Allied Strategic Air Force, which probably would have

¹⁸ Richard G. Davis, *Carl A. Spaatz and the Air War in Europe* (Washington, D.C.: Center for Air Force History, 1993), 155.

¹⁹ *Ibid.*, 161-165.

²⁰ Wesley Frank Craven and James Lea Cate, eds., *The Army Air Forces In World War II*, vol. 2, *Europe: Torch to Pointblank, August 1942 to December 1943* (Chicago, IL.: The University of Chicago Press, 1949), 304.

²¹ *Ibid.*, 307.

²² *Ibid.*

²³ *Ibid.*, 309.

²⁴ *Ibid.*, 566-574.

been commanded by an AAF officer.²⁵ However, in the end, the AAF had to settle on the USSTAF, which gave complete control of U.S. strategic bombing to General Spaatz.²⁶ Spaatz was given responsibility for determining CBO target priorities and employment techniques and tactics for Eighth Air Force in England and Fifteenth Air Force in Italy. However, Portal would still act as the agent for the CCS for a few months.²⁷

General Arnold also desired to build an American Air Commander to a level equal with that of the four-star theater commanders, Eisenhower, Nimitz, and MacArthur, which would elevate the status of the Army Air Forces. General Arnold explained his rationale for the USSTAF to Spaatz as follows:

Another and perhaps equally important motive behind the formation of the United States Air Forces in Europe was my desire to build an American Air Commander to a high position prior to the defeat of Germany. It is that aspect particularly, which has impelled me in my so far successful fight to keep your command parallel to Harris' command and, therefore, parallel to Ike's.²⁸

One final reason for the creation of the USSTAF was to allow the U.S. bombers to focus on strategic bombing rather than be diverted to tactical operations. Arnold wanted to ensure U.S. bombers were not placed under the Allied Expeditionary Air Force (AEAF), commanded by RAF Air Marshal Trafford Leigh-Mallory. The AEAF was a tactical force created for the cross-channel invasion.²⁹ Arnold believed Leigh-Mallory would divert the bombers from the desired operations of the AAF. Even so, bombers were diverted for operations beyond what the USSTAF planned, at least for a short time. Bombers were diverted to strike at Germany's V-1 and V-2 rocket capability (Operation CROSSBOW), as well as to support the Naval campaign against submarines.³⁰ Probably the biggest diversion was in the months before the invasion when the USSTAF was

²⁵ Davis, 268-269.

²⁶ *Ibid.*, 270-271.

²⁷ Craven and Cate, *The Army Air Forces In World War II*, vol. 2, 748.

²⁸ Davis, 279; Craven and Cate, *The Army Air Forces In World War II*, vol. 2, 742.

²⁹ David R. Mets, *Master of Airpower: General Carl A. Spaatz* (Novato, CA.: Presidio Press, 1988), 188-199.

³⁰ Wesley Frank Craven and James Lea Cate, eds., *The Army Air Forces In World War II*, vol. 3, *Europe: Argument to V-E Day, January 1944 to May 1945* (Chicago, IL.: The University of Chicago Press, 1951), 80.

placed under the operational control of Eisenhower, the Supreme Allied Commander. However, after the Allies were firmly planted on the European continent, control of strategic operations changed one final time, ending under the control of General Arnold.

Although acting as the CCS executive agent for US strategic operations, for all practical purposes, the final reorganization placed the USSTAF under the control of General Arnold. Strangely enough, the final change stemmed from a British initiative to get greater control over Harris and RAF Bomber Command. The RAF proposal was to go back to the pre D-day scheme of the CCS controlling strategic forces via Portal as the executive agent. The outcome was different than what Portal had proposed. Portal, who had been the executive agent for the CCS was now placed only in control of RAF Bomber Command. Arnold was made the CCS executive agent for the USSTAF, but largely gave all authority to Spaatz.³¹ Neither Eisenhower nor Spaatz saw much need for the final change since it took the USSTAF out from under the theater commander. Likewise, Arnold initially was opposed to the restructuring. However, Arnold soon realized the opportunity presented to him. In a letter to Spaatz, he writes, "I flopped over. In my opinion the advantages of having you as my representative determine the targets and objectives for the Strategic Air Force on a co-equal status with Portal gives us a position in the scheme of things that we have never had before."³² Spaatz assured Eisenhower that the USSTAF would be there to support the land forces when needed.³³ Arnold and Spaatz knew that the Air Force's struggle for independence would need support of Army Generals such as Eisenhower and Marshall. He would not jeopardize their support by failing to meet the Army's needs when called upon.³⁴

This discussion of the US Strategic Air Forces in Europe demonstrates the divergence of strategic and tactical air power that lasted for many years. It appears that FM 100-20 did not apply when it came to long-range bombers since the only time all forces, strategic and tactical, were under the operational control of a single theater commander in the ETO was from 1 April to 16 September 1944 while under Eisenhower.

³¹ Mets, 258-259.

³² Davis, 488.

³³ Ibid.

³⁴ Mets, 259.

World War II: Pacific Theater

The war in the Pacific was divided between two different theater commanders and two different advances toward Japan. The advance across the central Pacific through the Marshalls to the Marianas and the Palaus and then subsequently to Iwo Jima and Okinawa was commanded by Admiral Chester Nimitz. General Douglas MacArthur commanded the advance along the North coast of New Guinea to the Philippines. The objectives of the advances were to provide forward airfields; to furnish forward bases for the fleet; to secure land areas for staging of further troop advances; and, in the case of the Marianas, to provide bases for the long-range air attacks on the Japanese home islands by B-29 bombers.³⁵

In 1944, Twentieth Air Force was established to operate directly under the JCS with the Commanding General, AAF (Arnold) as executive agent to implement JCS directives for the employment of the B-29. Under the Twentieth Air Force, the 58th Bomb Wing assigned to Twentieth Bomber Command conducted operations from China, a third theater, from June 1944 until March 1945.³⁶ The Twenty First Bomber Command flew from Saipan, Tinian, and Guam from November 1944 until the end of the war.

Although the JCS, through Arnold, would direct the employment of the B-29s, the aircraft were deployed to theater, which meant that theater commanders were still responsible for the administrative support of the aircraft and personnel. Major decisions regarding deployment, missions, and target objectives were to be made by the JCS and executed through Arnold.³⁷ Responsibility for providing suitable bases, base defense, and logistical support would rest with theater or area commanders as directed by the JCS.³⁸ In short, employment would be directed from Washington while theater commanders were to provide support for those operations.

³⁵ Franklin D. O'lier et al., *The United States Strategic Bombing Survey Summary Report (Pacific War)*, (Washington D.C.: United States Government Printing Office, 1946), 7.

³⁶ Kenneth P. Werrell, *Blankets of Fire* (Washington D. C. and London: Smithsonian Institute Press, 1996), 256.

³⁷ Wesley Frank Craven and James Lea Cate eds., *The Army Air Forces In World War II*, vol. 5, *The Pacific-Matterhorn to Nagasaki, June 1944-August 1945* (Chicago, Il.: The University of Chicago Press, 1949), 32-41.

³⁸ *Ibid.*, 38.

Operational control of the B-29s from Washington rather than by MacArthur or Nimitz violated the FM 100-20 edict, “The command of air and ground forces in a theater of operations will be vested in the superior commander charged with the actual conduct of operations in the theater.”³⁹ One reason, stemming from Arnold, was a perceived lack of unity of command in the theater. General Arnold justified keeping control of B-29s in Washington since there was no single theater commander in the Pacific Theater of Operations (Arnold did not mention the China-Burma-India Theater as an option). He stated in his memoirs, “I could do nothing but retain command of the B-29s myself.” This was something that he felt he had to do rather something that he wanted to do. The B-29 would operate directly against the Japanese homeland, beyond the operating areas of either General MacArthur in the South Pacific or Admiral Nimitz in the Central Pacific. Arnold stated, “I could find no one out there who wanted unity of command, seemingly, unless he himself was made Supreme Commander.”⁴⁰

The structure of the Pacific Theater provided General Arnold a rather convenient argument to justify maintaining control of the B-29s. However, neither MacArthur nor Nimitz was responsible for establishing unity of command in the Pacific Theater. That responsibility belonged to the President and the Combined Chiefs of Staff. Therefore, unity of command did exist, just in two commands. A better statement for Arnold may have been, “I could find no one in Washington that wanted to make the decision between MacArthur or Nimitz leading the theater.” It is plausible that another reason for maintaining control in Washington was to ensure the aircraft would be used for strategic purposes rather than tactical to justify its worth.

Retaining operational control may have been General Arnold’s method for ensuring the B-29s would be used for strategic bombing rather than tactical operations in order to justify its cost. The B-29 project had been referred to as the 3-billion-gamble, since the aircraft was ordered into production right from the drawing board rather than after a prototype was built and tested.⁴¹ In addition, President Roosevelt was eager for

³⁹ Army Air Force Field Manual 100-20, *Command and Employment of Air Power*, (Washington D.C.: United States Printing Office, 21 July 1941), 2.

⁴⁰ H. H. Arnold, *Global Mission* (New York, N.Y.: Harper & Brothers, Publishers, 1949), 348.

⁴¹ Alvin D. Coox, “Strategic Bombing in the Pacific 1942-1945,” in *Case Studies in Strategic Bombardment* ed. R. Cargill Hall (Washington D.C.: U.S. Government Printing Office, 1998), 267.

the new and costly bomber to strike immediately at Japan.⁴² The range of the B-29 allowed the AAF to attack the Japanese homeland directly and bypass some of the island hopping approach of MacArthur and Nimitz in preparation for a land invasion. In his book, *Bombs, Cities, and Civilians*, Conrad Crane considered how different the B-29 operations may have been if LeMay, Commander of Twentieth Bomber Command and then Twenty First Bomber Command, were put under MacArthur or Nimitz, rather than Arnold. LeMay may have had a tougher time convincing MacArthur and Nimitz of his strategic bombing tactics than he did Arnold.⁴³

The thought that the bombers would be used against other than Japanese homeland targets was reinforced by General George C. Kenney's objective for the B-29s. Kenney, the senior Army Air Force officer in theater working for General MacArthur, asked Arnold several times for B-29s to be assigned to him and stationed in Australia.⁴⁴ He wanted to use them against the oil refinery at Balikpapan, Borneo, which was believed to be producing most of the aviation fuel for the Japanese.⁴⁵

Finally, the Navy may have wanted control of the B-29s to remain in Washington to avoid giving greater power to MacArthur and possibly to gain some influence over B-29 targets for Nimitz. Admiral Ernest J. King, Chief of Naval Operations, had a stake in retaining direction of the B-29s with the JCS. He was initially opposed to the strategic bombing concept but changed his mind when it came to the Twentieth Air Force.⁴⁶ If MacArthur were to get command of the B-29s and Naval forces in order to invade the Philippines, he would be positioned to take overall command of the Pacific and relegate Nimitz to a subordinate position.⁴⁷ By retaining direction for the B-29s with the JCS, Admiral King also had some direct say in the employment of the B-29, which aided Admiral Nimitz' operations. Against the wishes of LeMay, some B-29s were diverted from strategic bombing to conduct aerial mine-laying and to bomb Japanese airfields on

⁴² *Ibid.*, 274.

⁴³ Conrad C. Crane, *Bombs, Cities, and Civilians: American Airpower Strategy in World War II* (Lawrence, Kansas: University of Kansas Press, 1993), 120-125.

⁴⁴ George C. Kenney, *General Kenney Reports* (Washington D.C.: Office of Air Force History United States Air Force, 1987), 341-378.

⁴⁵ Kenney, 378.

⁴⁶ Craven and Cate, *The Army Air Forces In World War II*, vol. 5, 38.

⁴⁷ E. B. Potter, *Nimitz* (Annapolis, MD: Naval Institute Press, 1976), 279-297.

Kyushu.⁴⁸ LeMay was more willing to support mine-laying (when the weather did not permit bombing of Japan) than to repeatedly attack Kyushu.⁴⁹ After reviewing post-airfield strike photos, he felt that the bomber was being wasted and should be released from supporting Nimitz.⁵⁰ However, despite protest by Arnold and LeMay, King made it clear that if the Army wanted the Navy to continue supporting its operations, the Army had better support some of the Naval operations with the AAF.⁵¹

Operational control of bombers during WW II was profoundly influenced by the AAF pursuit of strategic bombing as well as the pursuit for autonomy. Strategic bombing was viewed as independent from tactical operations. This would be evident in much of the Air Force doctrine in the early 1950s. Likewise, independence of tactical operations meant greater autonomy from the Army. As stated earlier, this division of strategic and tactical operations would drive concerns for many years to come. The first of which would be the Korean War.

Korean War

Lieutenant General George E. Stratemeyer commanded the Far East Air Force (FEAF), the air component to Far East Command. General MacArthur was Commander of Far East Command, Commander of United Nations Command, and retained the position of commander for land forces in theater until being relieved by President Truman.⁵² FEAF was divided into three widely separated numbered air forces: the Thirteenth in the Philippines, the Twentieth on Okinawa and Guam, and the Fifth in Japan.⁵³

On 8 July 1950, FEAF Bomber Command (provisional) was established to exercise operational control of the 19th Bomb Group B-29s stationed at Guam and SAC

⁴⁸ Potter, 358-377; Werrell, 170-182.

⁴⁹ Werrell, 174.

⁵⁰ Potter, 372.

⁵¹ Richard H. Kohn, *Strategic Air Warfare* (Washington D.C.: Office of Air Force History, 1984), 50.

⁵² William W. Momyer, General, USAF, Ret., *Air Power in Three Wars*, (Washington D.C.: Government Printing Office, 1978), 52-53.

⁵³ Robert F. Futrell, *The United States Air Force in Korea 1950-1953* (1983; new imprint, Washington D.C.: United States Government Printing Office, 2000), 56.

B-29 groups that were sent to the theater.⁵⁴ B-29s, which were not a part of Strategic Air Command's (SAC)⁵⁵ nuclear force, were already assigned to Twentieth Air Force at Guam.⁵⁶ On 3 July 1950, Stratemeyer received word from General Hoyt S. Vandenberg, Chief of Staff of the Air Force, that FEAF would receive the 22nd and 92nd SAC Bomb Groups (Medium)⁵⁷. Major General Rosie O'Donnell from SAC was assigned to command the provisional bomber command.⁵⁸ Two other Bomb Groups from SAC, the 98th and 307th, arrived in August 1950. The 19th, 22nd, and 307th Bomb Groups were stationed at Kadena Air Base under Twentieth Air Force for logistic and administrative support, while the 92nd and 98th Bomb Groups were stationed at Yokota Air Base and attached to Fifth Air Force.⁵⁹ The significance of being assigned for logistic and administrative support will be discussed in a later chapter. For now, logistic and administrative support meant that the 20th and 5th Air Force were responsible for providing the ready forces for employment by FEAF Bomber Command.

Although the B-29s were assigned to FEAF, there were still concerns over the proper employment of bombers. B-29s were sent to FEAF with a strategic bombing campaign in mind but were used, at least initially, against tactical targets. The employment of B-29s that General Vandenberg had in mind when he secured for FEAF operational control of the B-29s was against targets north of the 38th parallel, which were supporting the North Korean's campaign in the South. In a message to Stratemeyer, he said,

“While I do not presume to discuss specific targets, it is axiomatic that tactical operations on the battlefield cannot be fully effective unless there

⁵⁴ William T. Y'Blood, ed., *The Three Wars of Lt. Gen. George E. Stratemeyer, His Korean War Diary* (Washington D.C.: United States Government Printing Office, 1999), 35.

⁵⁵ Strategic Air Command (SAC) was formally established by the JCS in 1949. CINCSAC was charged with command over all forces allocated to him by the JCS or other authority. Likewise, SAC was assigned definite missions, including the conduct of strategic air operations. CINCSAC was also charged with planning for his assigned missions. Ronald H. Cole, et al. *The History of the Unified Command Plan 1946-1993* (Washington D.C.: Joint History Office, 1995), 16.

⁵⁶ Y'Blood, 35.

⁵⁷ Due to the larger bombers coming into inventory, the B-29s was now considered a Medium bomber rather than Very Heavy, as it was once designated.

⁵⁸ Y'Blood, 51-60.

⁵⁹ Message, General Orders Number 30, Far East Air Force, Organization of Unit, 8 July 1950.

is simultaneous interdiction and destruction of sources behind the battlefield”⁶⁰

As soon as the 22nd and 92nd Bomb Groups were ordered to FEAF, SAC instituted a “crash” project to identify strategic targets and target systems in North Korea including industrial centers and hydroelectric complexes.⁶¹ Upon arrival in theater, Bomber Command initiated the strategic campaign, only to be diverted to tactical efforts after the first mission.⁶² Far East General Headquarters (GHQ) Target Group wanted justification for the strategic bombing campaign. After exhaustive briefings, GHQ Target Group decided not to seek operational control of strategic air attacks but did resolve to designate B-29 targets under “special circumstances.” These “special circumstances” occurred immediately when MacArthur insisted that the B-29s were to be used to support the Eighth Army by striking enemy convoys, troops, and tanks as North Koreans pressed south.

General Vandenberg and other JCS members became concerned about the use of B-29s against tactical rather than strategic targets. General MacArthur indicated that he knew the B-29s were being improperly used but that a ground emergency justified emergency procedures.⁶³ The North Korean People’s Army was moving south at unexpected speed. They were overwhelming the 24th Division with ten to one odds, which created a very real possibility that U.S. forces might be pushed off the Korean peninsula.⁶⁴ The Fifth Air Force and Bomber Command became the immediate force MacArthur could call upon to slow the advancing force. By 18 July, MacArthur agreed that there were better employment methods for the medium bombers and sent word to Stratemeyer that most of the B-29s would be concentrated between the Pusan perimeter and the 38th parallel to help isolate the battlefield.⁶⁵

As soon as 23 July, Stratemeyer sent MacArthur a plan for the B-29’s use that would assign one group, the 19th, to ground force support, while the 22nd and 92nd would

⁶⁰ Futrell, 46.

⁶¹ Ibid., 183.

⁶² Ibid., 186.

⁶³ Ibid., 94.

⁶⁴ Ibid., 85.

⁶⁵ Ibid., 94.

strike strategic targets.⁶⁶ Likewise, the Joint Chiefs directed Vandenberg to make available to MacArthur two more medium-bomber groups for a period of thirty days. Although the JCS did not intend to preclude MacArthur from using the B-29s on other over-riding missions, they did indicate a number of strategic targets that were to be hit. The 98th and 307th Bomb Groups arrived in August 1950 and were put to maximum use against strategic targets under the operational control of FEAF and Bomber Command.⁶⁷ In a little more than one month, Bomber Command had neutralized all but one of the strategic targets, the exception avoided for political reasons.⁶⁸ However, another operational control issue in Korea caused even greater concern than whether to strike strategic or tactical targets.

General LeMay, Commander in Chief (CINC) SAC, was not overly concerned about retaining operational control of the B-29s early in the war since the aircraft sent to Korea, although not obsolete, were no longer the front-line bombers in SAC's inventory. The B-50 (an improved B-29) and B-36 were the primary bombers of SAC's nuclear mission, although a few B-29s were certified. When SAC received orders to send B-29s to Korea, they sent the lowest priority outfits that were not nuclear-capable.⁶⁹

However, later, General LeMay indicated concern about B-29 losses jeopardizing the deterrent value of SAC's war plan. He stated,

“From various quarters we are receiving expressions of “grave concern” over SAC's ability to execute the war plan. You are well aware of the strenuous efforts we have had to exert in order to generate a degree of confidence in strategic bombers. We cannot afford to have this confidence dissipated on the basis of an operation conducted under conditions rigged in favor of the enemy and utilizing tactics which are not in accordance with our established principle.”⁷⁰

Daylight bomber missions with ineffective fighter escort were leading to greater losses of B-29s as the war went on. Before October 1951, FEAF had only lost six B-29s in combat. However, in the month of October, five aircraft were shot down, four

⁶⁶ Y'Blood, 83-84.

⁶⁷ Futrell, 187.

⁶⁸ Ibid., 195.

⁶⁹ Kohn, 86-87.

⁷⁰ Conrad C. Crane, *American Airpower Strategy in Korea 1950-1953* (Lawrence, Kans.: University of Kansas Press, 2000), 76.

damaged beyond repair, and three lost due to accidents.⁷¹ This was a devastating blow since there were less than 90 bombers in the FEAF Bomber Command and most of the losses in October occurred during one week.⁷² If the North Korean defenses could so handily down the bombers then some of the atomic war plans deterrent value would be lost. LeMay did give some suggestions to Bomber Command as to how they could reduce the vulnerability of the B-29. However, he was not willing to do all that he could to reduce losses. He would not allow the use of chaff, electronic radar jamming techniques, cell tactics, or anything else that would possibly give away capabilities.⁷³ In the end, the solution was no more daylight bombing.

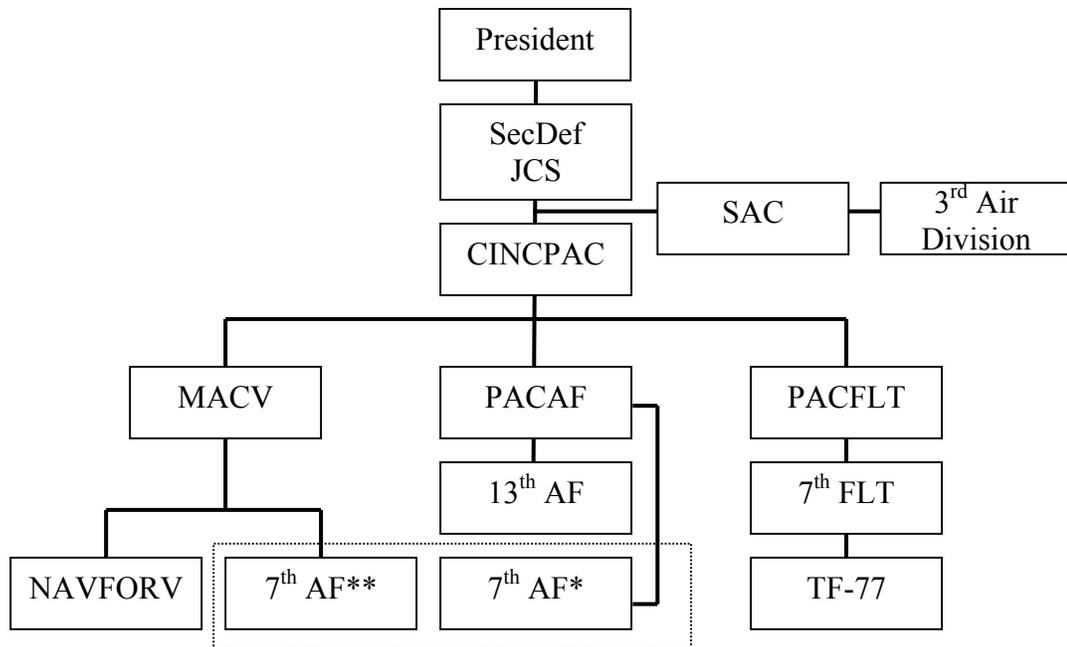
The operational control of B-29s in the Korean War was under one theater air commander, Stratemeyer, following the FM 100-20 edict. Although the B-29s were not used exclusively against strategic targets, they provided valuable air power to the theater. However, the concerns over lost aircraft may have been a driving force behind the operational control of SAC bombers in the Vietnam War.

Vietnam

⁷¹ Futrell, 411-412.

⁷² Crane, *American Airpower Strategy in Korea 1950-1953*, 88.

⁷³ *Ibid.*, 90.



(Source: Momyer, *Air Power in Three Wars*, 65-85.)

*In July 1965, 2d Air Division was separated from 13th Air Force and placed directly under PACAF. On 14 March 1966, 2d Air Division was deactivated and 7th Air Force activated in its place.

**7th Air Force was the Air Component under operational control of MACV.

Figure 1. Command Arrangements in Southeast Asia, 1966 – 1972

Air operations in Southeast Asia were split between four air commanders with overlapping areas of responsibility. Commander-in-Chief of Pacific Command (CINCPAC), in whose AOR operations were conducted, exercised command over US forces in Southeast Asia while CINCSAC, retained operational control of SAC forces employed in the war.⁷⁴ The air war over Vietnam was divided into four sections as shown in Figure 1. Under the operational control of PACOM was a subordinate unified command, Military Assistance Command Vietnam (MACV). Commander United States MACV, via its Air Component Command, 7th Air Force (7AF), was responsible to CINCPAC for air operations in South Vietnam, portions of LAOS, and portions of North Vietnam. CINC Pacific Air Forces (CINCPACAF) was responsible to CINCPAC for portions of Laos and North Vietnam. CINC, Pacific Fleet (CINCPACFLT) was

⁷⁴ Cole, 35.

responsible for air operations in other parts of North Vietnam.⁷⁵ Finally, operational control of B-52s operating from Guam, Japan, and Thailand remained with SAC.

B-52s flew ARC LIGHT missions from 1965 to 1968 and LINEBACKER I/II missions in 1972. ARC LIGHT missions were flown primarily in South Vietnam, Laos, and the demilitarized portion of North Vietnam. Linebacker missions were flown in North Vietnam. LINEBACKER I missions were flown to counter the North Vietnamese Easter Offensive of 1972. LINEBACKER II was aimed at bringing North Vietnam back to the negotiating table in late 1972. B-52s operated from Anderson Air Force Base, Guam, U-Tapao, Thailand, and Kadena Air Base, Okinawa for ARC LIGHT and Guam and Thailand only for LINEBACKER.⁷⁶

For SAC, Southeast Asia was viewed as a temporary mission. General Momyer, 7th Air Force Commander, tried several times to get operational control of the B-52s placed under Seventh Air Force but to no avail.⁷⁷ SAC's foremost responsibility was to the Single Integrated Operations Plan (SIOP) mission. Since B-52 operations in Southeast Asia was but one part of SAC's global responsibilities, it naturally followed that the bomber force would remain within established command channels, which were the JCS and SAC.⁷⁸ General Momyer made the case that both CINCSAC and CINCPAC worked directly for the JCS. Therefore, SAC forces placed under the operational control of PACOM could be withdrawn at any time.⁷⁹ The Air Force argued that any delay in returning the bombers could be critical, as valuable time would be lost in the debate over pulling forces from PACOM.⁸⁰ However, SAC maintaining control of its B-52s was but one of the problems with operations in Vietnam.

The process for obtaining target approval was time consuming and decreased the flexibility air commanders maintained in Southeast Asia. 2nd Air Division (7th Air Force after 1966) and all ground force commanders nominated targets to MACV, who consolidated them and established a priority before sending to CINCPAC. CINCPAC

⁷⁵ John Lane Jr., Lt. Colonel, *Command and Control and Communications Structures in Southeast Asia* (Maxwell Air Force Base, Ala.: Air University Press, 1981), 54.

⁷⁶ When Kadena returned to Japanese control, bombers were no longer allowed to operate from Japan.

⁷⁷ Momyer, 102.

⁷⁸ Warren A. Trest, *USAF SAC Operations in Support of SEASIA* (U), Project CHECO Southeast Asia Report (HQ PACAF, Directorate, Tactical Evaluation, 17 December 1969), 2.

⁷⁹ Momyer, 99.

⁸⁰ Ibid.

sent the targets to the JCS who thoroughly reviewed them before submitting to the Secretary of Defense, who coordinated with the Secretary of State before submitting them to the President.⁸¹ In the words of General Momyer, “The coordination process was simply not effective for employing bombers against suspected enemy areas.” The drawbacks were recognized and the process changed to permit JCS approval of targets in South Vietnam.⁸² However, target approval for North Vietnam and Laos was still coordinated through the President and Secretary of Defense for final approval.

The mission planning process added to the delays caused by the approval process. The same ARC LIGHT targets, which were nominated to MACV for approval, were also passed to the SAC Liaison, which became SAC Advanced Operational Nucleus (ADVON).⁸³ SAC ADVON would review the targets and then forward them to SAC’s 3rd Air Division in Omaha, Nebraska. The 3rd Division would then review targets and plan the missions to include addressing bombing tactics, axis of attack, routing, air refueling requirements and deployment/redeployment schedule. The division published the frag (specifics of the mission) for each ARC LIGHT strike and followed this with a mission execution directive.⁸⁴ ARC LIGHT targeting and utilization of the force by COMUSMACV did improve over the years, thanks in large part to enhancements developed by 3rd Air Division which gave greater flexibility in striking time-sensitive targets.⁸⁵ However, there were still disconnects between the forces in theater and SAC.

Problems of coordination between the three theater air commanders and SAC were highlighted during the eleven-day LINEBACKER II operation. The main target of the operation was the Hanoi area, which was split between USPACAF and TF-77. In addition, Seventh Air Force was responsible for electronic countermeasure, fighter cover, and wild weasel support for the area. SAC remained a dominant voice in selection of targets and mission planning for the B-52s. This created problems for 7AF since SAC

⁸¹ Ibid.

⁸² Ibid., 101.

⁸³ Although unable to obtain operational control, Seventh Air Force was provided with a SAC ADVON team responsible for targeting, planning, and control of B-52 strikes.

⁸⁴ Trest, 2-8.

⁸⁵ Ibid.

provided short notice of required support and spread the 7AF assets thin with the persistent day/night operations.⁸⁶

Problems also arose from SAC doing the target selection and mission planning in Omaha. First, crews often received mission information with little time to spare. Between CINCSAC's delay in targeting decision, the time to plan, and the time difference between the planners in Omaha and theater, crews often received mission packages at the last minute providing little time for study. Second, crews believed SAC was out of touch with the reality of the theater. During the first three days of LINEBACKER II, eight B-52s were shot down by SA-2s due to flawed SAC tactics. Six of the eight were downed on the third night giving indication that the North Vietnamese had adapted to the time between aircraft in the stream formation.⁸⁷ Many of the aircraft were lost due to limited compression of timing over the target area as well as limited ECM capability.⁸⁸ Since B-52 stationed on Guam had the greatest distance to fly and therefore the greatest time crunch, they were given greater mission planning control to increase aircrew knowledge of the missions. However, SAC continued to maintain a firm control of the campaign as a whole.⁸⁹

Iraq

The US military command structure was unambiguous, letting CINCCENT exercise full command over all US forces in theater, maximizing unique service capabilities of all forces, while ensuring unity of command.

*Conduct of the Persian Gulf War
Final Report to Congress vol. 1, April 1992*

Command of air operations during DESERT SHIELD/STORM was given to Central Command Air Force (CENTAF). CENTAF was the air component for United

⁸⁶ Momyer, 106-107.

⁸⁷ Wayne Thompson, *To Hanoi and Back, The U.S. Air Force and North Vietnam, 1966-1973* (Washington D.C.: Smithsonian Institution Press, 2000), 272.

⁸⁸ Many of the aircraft lost on the third night were B-52Gs, which did not have an ECM upgrade that was present on the B-52Ds. After the third night, the B-52Gs were removed from the Hanoi area. Thompson, 272.

⁸⁹ Thompson, 255-280.

States Central Command (CENTCOM). CINCCENT designated the CENTAF commander, General Charles Horner, as the Joint Forces Air Component Commander (JFACC) to coordinate all coalition air forces to ensure focus of effort in the air campaign. The JFACC planned, coordinated, allocated, and tasked apportioned sorties in coordination with other Service component commanders. Forces under CENTAF were divided into four provisional air divisions, set up in accordance with mission specialties, to provide clearer command relationships between the wings and CENTAF. The B-52s were under the 17th Air Division (Provisional) with operational control assigned to CENTAF and flew from Moron Air Base, Spain, Fairford Air Base, England, and bases within theater.

As early as 1988, CINCSAC, General John T. Chain had considered the need to provide operational control of SAC bombers to theater commander. In an article to *Strategic Review*, General Chain emphasized the need to dispel certain myths.

“Persistent myths have obstructed an understanding of the versatile role of U.S. heavy bombers in both “strategic” and “tactical” missions and in delivering both nuclear and nonnuclear munitions – a versatility that is amply documented by the experience of World War II, Korea, and Vietnam.”⁹⁰

Specifically, he addressed three myths. The first was the myth that heavy bombers carry “only” nuclear weapons. The second was that “strategic” equaled “nuclear.” The third was that theater warfare is strictly the province of “tactical” (fighter) aircraft. He went on to state, “SAC bombers can substantially contribute to the missions of theater commanders, particularly in targeting critical enemy assets that are beyond the reach of other means.” SAC bombers would provide a responsive force element to meet contingencies around the globe in “geographically shifting theaters of engagement.”⁹¹

Before Iraq invaded Kuwait in 1990, SAC had already established a Command Arrangements Agreement (CAA) with other theater CINCs and had drafted an agreement

⁹⁰ John T. Chain, General, USAF, “Strategic Bombers in Conventional Warfare,” *Strategic Review*, Spring 1988, 23.

⁹¹ Chain, 23.

for CENTCOM's review concerning conventional-only and SIOP committed bombers.⁹² The final agreement was signed by CINCSAC and CINCCENT in November of 1990. The agreement specified that SAC would retain combatant command (COCOM) of all SAC forces. USCINCCENT would assume operational control (OPCON) of augmenting bomber forces when directed by the National Command Authorities (NCA) and upon execution of a coordinated and approved operations plan or operations order. It was understood that CINCCENT would delegate operational control to the Commander of CENTAF as the senior air commander in theater. It further stipulated that OPCON of SIOP-committed bomber forces would revert to CINCSAC when directed by the NCA.⁹³ This agreement gave CENTCOM full authority to task the B-52s deployed in support of CENTCOM as he saw appropriate.

The division of strategic and tactical operations, which had developed during World War II, was now fading. Bombers were once again joined with fighters under the operational control of a theater air commander.⁹⁴ Of course, the Cold War had also ended and SAC's bomber mission was steadily losing its priority. By the time bombers would be used again in large-scale operations, SAC would no longer be around. On 1 June 1992, Air Combat Command was established combining bombers from SAC and fighters from Tactical Air Command (TAC).⁹⁵

Kosovo

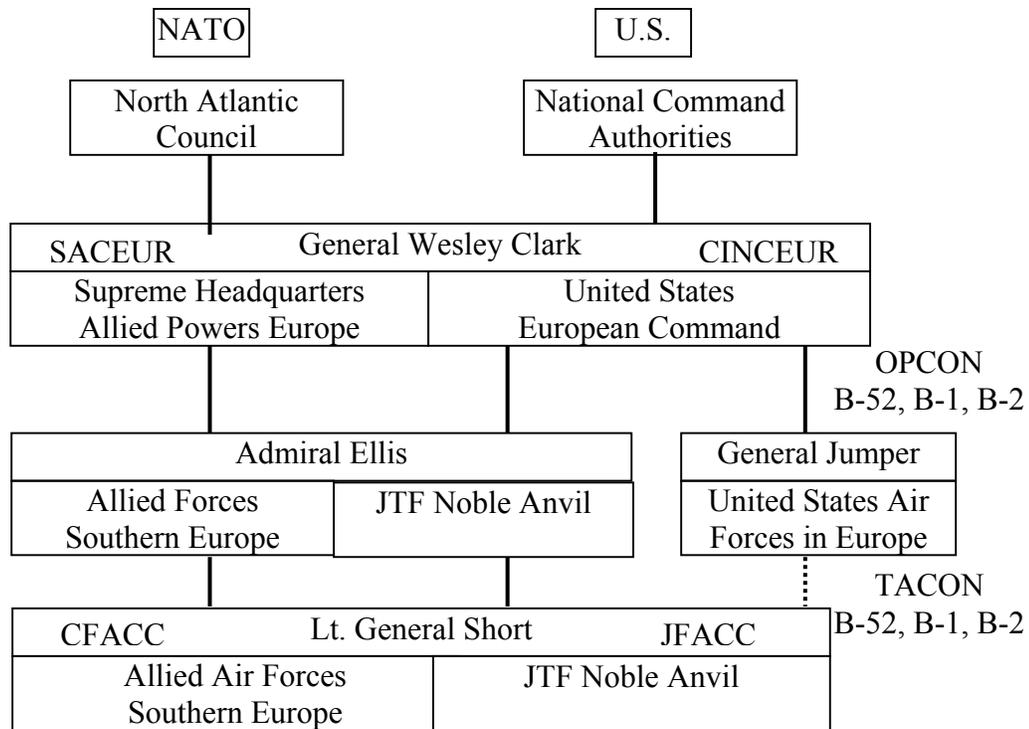
The command relationship established during Operation ALLIED FORCE had peculiarities but established operational control for all bombers with the theater air commander. A parallel control structure existed between the North Atlantic Treaty Organization (NATO) and the U.S. (see Figure 2.). The U.S. command structure went

⁹² Brigadier General Gary L. Curtain, Asst. DCS/Plans and Programs, to Rear Admiral Grant A. Sharp, Director, Plans and Policy, CENTCOM, letter, subject: Proposed Command Arrangements Agreement (CAA) between SAC and CENTCOM, 20 November 1989 (see Appendix B).

⁹³ General John T. Chain, Commander, SAC to General H. Norman Schwarzkopf, Commander, CENTCOM, letter, Subject: Command Arrangements Agreement between Commander in Chief, United States Central Command and Commander in Chief, Strategic Air Command, 27 October 1990.

⁹⁴ As another note, Navy and Marine air were also under tactical control of the theater air commander. The position of the theater air commander over all air forces in theater will be discussed in a later chapter.

⁹⁵ "Air Combat Command History," online, Internet, 3 May 2002, available from <http://www2.acc.af.mil/library/history/>.



(Source: Modified from NATO's Air War for Kosovo: A Strategic and Operational Assessment Lambeth, 2001, 208.)

Figure 2. U.S. and Allied Organization for ALLIED FORCE

from the President and Secretary of Defense to the Commander in Chief, European Command (CINCEUR). CINCEUR also reported to the North Atlantic Council in his position as Supreme Allied Commander Europe. CINCEUR's air component commander was Commander of U.S. Air Forces Europe (COMUSAFE). COMUSAFE retained operational control of all the U.S. bombers employed in the Federal Republic of Yugoslavia, which included B-52s, B-1s, and B-2s. Joint Task Force NOBLE ANVIL was established and commanded by Admiral Ellis, who was also Commander, Allied Forces Southern Europe. The Joint Forces Air Component Commander for NOBLE ANVIL was Lieutenant General Michael Short, who also served as Allied Air Forces Southern Europe. General Short exercised tactical control⁹⁶ over the bombers, which was

⁹⁶ Tactical control (TACON) is a command authority for localized control, which is delegated from a commander who has either OPCON or TACON.

delegated by General Jumper, COMUSAFE.⁹⁷ Although General Jumper was not in the NATO command structure, he was senior to General Short and therefore in the U.S. chain of command.

A discussion of the relationship between General Jumper and General Short is relevant to this paper but not appropriate for this chapter. The distinction between a Unified Command's Air Component Commander, Commander of Air Force Forces, and Joint/Combined Air Component Commander is important for determining who should have operational control. This discussion is reserved for a later chapter.

ALLIED FORCE marked the first time the B-52, B-1, and B-2, were involved in combat operations at the same time. In fact, this was the combat debut for the B-2. The B-52s and B-1s flew from Fairford Air Base, England, while the B-2s flew from the continental United States (CONUS). Each B-2 sortie took approximately 30 hours to fly from the U.S., strike targets in theater, and then return to Whiteman Air Force Base, Missouri. The significance of this was that the aircraft did not deploy to theater as bombers had always done in the past.

Since the B-2s did not deploy from the U.S., the point at which operational control of the aircraft "Chopped" (change of operational control) to the theater came into question. It was resolved by specifying that the aircraft was chopped upon launch. This procedure provided no immediate confusion since Whiteman was working closely with the theater and its parent command, USJFCOM. However, it raised the question of operational control while aircraft were on the ground. Who had final say concerning employment issues that were raised during planning for missions? This question goes back to the central question of the thesis. When does the supporting commander relinquish operational control and when does the supported commander gain operational control of bombers that do not deploy?

This chapter examined the operational control of bombers since WW II. There have been many influences to operational control of bombers ranging from early pursuits for independence to the importance of SAC's global mission. As the next chapter will show, the mission of the combatant command will be the driver for determining who

⁹⁷ COMUSAFE also retained operational control of the F-117, U.S. E-3, KC-135, and U-2 during Operation ALLIED FORCE. Benjamin S. Lambeth, NATO's Air War for Kosovo, A Strategic and Operational Assessment (RAND Publishing, 2001), 207-209.

should have operational control while subsequent chapters will answer the question of when operational control should change.

Chapter 3

Legislation of Operational Control

One of the lessons which have most clearly come from the costly and dangerous experience of this war is that there must be unified direction of land, sea, and air forces at home as well as in all other parts of the world...

*Harry S. Truman, President, United States
19 December 1945*

Operational control stems from the legislation that created the current unified command structure. This chapter surveys the evolution of legislation pertaining to unified commands. The National Security Act of 1947, the DOD Reorganization Act of 1958, and the Goldwater-Nichols Act of 1986, would each be a step closer to forcing the three Services to organize and fight as a unified structure.

National Security Act of 1947

“Unification is an essential step-along with universal training-in the development of a comprehensive and continuous program for our future safety and for peace and security of the world.”

*Harry S. Truman
19 December 1945*

The National Security Act of 1947 provided the foundation legislation concerning unified action of ground, sea, and air forces.⁹⁸ Although unified action occurred during World War II, legislation for permanent unified commands began with this act. Secretary of War, Robert P. Patterson, emphasized, “The National Security Act of 1947 arose from the need for a unified organization of the armed forces following World War II.”

⁹⁸ This term indicates joint action by two or more Service components, although could include operations by a single Service to support the overall operation. Under unified action, unified direction provides the joint force commander, a commander of multiple Service forces, with sufficient authority over force assigned or attached to accomplish an assigned mission. Joint Publication (JP) 0-2. *Unified Action Armed Forces*, 10 July 2001, I-5.

National defense was to be a single enterprise, with emphasis on relationships between ground, sea and air.⁹⁹ This was accomplished by placing the Army, Navy, and the newly formed Air Force under one Department.

The Department of Defense¹⁰⁰ (DOD) was established to provide a civilian level of authority between the President and the military. Joint action had led to increasing power for the Joint Chiefs of Staff and President Truman believed a civilian, below the level of the President, should have authority over the entire military establishment, including the Joint Chiefs, thus ensuring civilian control.¹⁰¹ Furthermore, the President should not have to coordinate between the three Services. He emphasized the need for a Department between the President and the military by stating, “The existence of three departments would complicate tremendously every problem of coordination that now exists between the War and Navy Departments, and between the Services and the rest of the government.”¹⁰² From this was born the Department of Defense, headed by the Secretary of Defense.

The act also gave statutory recognition to the Joint Chiefs of Staff and tasked them with establishing unified commands in strategic areas when such unified commands were in the interest of national security.¹⁰³ Before the act, a Presidential order was required to establish a unified command.¹⁰⁴ In 1946, President Truman approved what was referred to at the time as the “Outline Command Plan,” which laid the foundation for the first seven geographic unified commands.¹⁰⁵ A unified command was a joint force, under a single commander, which was composed of significant assigned or attached

⁹⁹ Statement by Robert P. Patterson, Secretary of War, in House, *National Security Act of 1947: Hearings before the Committee on Expenditures in the Executive Departments*, House of Representatives, 8th Cong., 1st sess. on H.R.2319 (Washington D.C.: United States Government Printing Office, 1947), 12.

¹⁰⁰ Department of Defense was originally the National Military Establishment (changed in 1949).

¹⁰¹ “President Truman’s Message to the Congress-19 December 1945,” in *Department of Defense Documents on Establishment and Organization 1944-1978*, ed. Alice C. Cole et al. (Washington D.C.: Office of the Secretary of Defense Historical Office, 1978), 13.

¹⁰² *Ibid.*, 14.

¹⁰³ “National Security Act of 1947-26 July 1947,” in *Department of Defense Documents on Establishment and Organization 1944-1978*, ed. Alice C. Cole et al. (Washington D.C.: Office of the Secretary of Defense Historical Office, 1978), 35-50.

¹⁰⁴ Statement by Fleet Admiral Chester W. Nimitz, in House, *National Security Act of 1947: Hearings before the Committee on Expenditures in the Executive Departments*, House of Representatives, 8th Cong., 1st sess., 1947, HR 2319, 349.

¹⁰⁵ Ronald H. Cole, et al., *The History of the Unified Command Plan 1946-1993*. (Washington D.C.: Joint History Office, 1995), 13.

components of two or more services.¹⁰⁶ The Joint Chiefs of Staff were given full authority over the unified commands, which they organized mainly along Service lines.

Very little was stated in the act concerning how the Services would support the Unified Commands. Each Service was tasked with preparing its force for, “the effective prosecution of war except as otherwise assigned and, in accordance with integrated joint mobilization plans, for the expansion of the peacetime components of the Air Force (Army or Navy) to meet the needs of war.”¹⁰⁷ The functions of the services were listed in Executive Order 9877, but this only reiterated the statement presented in the security act.¹⁰⁸ Later, the Key West agreement, which was meant to resolve disputes between the Services on overlapping functions, provided limited joint guidance to each service.¹⁰⁹

In the end, the act provided the framework for establishing unified commands but made little progress in pushing the Services to fight as a unified force. There was no distinction made concerning operational control. However, the Department of Defense Reorganization Act of 1958 would more clearly define the Service’s role in unified commands.

Department of Defense Reorganization Act of 1958

“...little more than a weak confederation of sovereign military units.”
Dwight D. Eisenhower, President, United States
Referring to the National Security Act of 1947
Message to Congress, 3 April 1958

One aspect of the Department of Defense Reorganization Act of 1958 was to establish unified commands that were truly unified. In 1958, President Eisenhower requested Congress enact substantial changes in military organization to meet shortfalls of the NSA of 1947. He stated, “We must recognize that by law our military organization still reflects the traditional concepts of separate forces for land, sea, and air operations.”

¹⁰⁶ Army Field Manual 110-5, Navy JAAF, and Air Force Manual 1-1, *Joint Actions Armed Forces*, 19 September 1951, 30.

¹⁰⁷ National Security Act of 1947-26 July 1947, 35-50.

¹⁰⁸ Executive Order 9877, in *The United States Air Force Basic Documents on Roles and Missions*, ed. Richard I. Wolf (Washington D.C.: Office of Air Force History, 1987), 85-92.

¹⁰⁹ Executive Order 9950, in *The United States Air Force Basic Documents on Roles and Missions*, ed. Richard I. Wolf (Washington D.C.: Office of Air Force History, 1987), 154-169.

He proclaimed all operational forces, with few exceptions, must be organized into truly unified commands. “Without this type of organization, the United States cannot fully marshal its armed strength.”¹¹⁰ Likewise, the final wording of the act stipulated that forces assigned to unified or specified commands could only be transferred “therfrom [sic]” only by authority and under the procedure established by the Secretary of Defense, with the approval of the President.”¹¹¹

President Eisenhower wanted to create a clear chain of command from the Commander in Chief, through the Secretary of Defense, to the combatant commanders. Before the act, the chain of command included the Secretaries of Military Departments and their Chiefs of Staff.¹¹² The President’s goal was to completely remove the Services and their Chiefs from the command channel for directing unified operations, which would create two distinct command lines, one combatant command only and the other Service support.¹¹³ In the end, the Secretaries were removed but the Service Chiefs remained in the operational chain of command as military staff and advisors to the Secretary of Defense, which failed to meet the intent of the President.¹¹⁴ The JCS would still be able to screen, analyze and shape the inputs from the combatant commanders to the Secretary of Defense, but the chain was somewhat more direct.

President Eisenhower emphasized the importance of providing clear authority to the combatant commanders. In his message to Congress, he referred to the evils of diluted command. He stated, “each unified commander must have unquestioned authority over all units of his command.”¹¹⁵ According to the act,

“Forces assigned to such unified combatant commands or specified combatant commands shall be under the full operational command of the commander of the unified combatant command or the commander of the

¹¹⁰ “President Eisenhower’s Message – 3 April 1958,” in *Department of Defense Documents on Establishment and Organization 1944-1978*, ed. Alice C. Cole et al. (Washington D.C.: Office of the Secretary of Defense Historical Office, 1978), 179.

¹¹¹ “Department of Defense Reorganization Act f 1958 – 6 August 1956 (72 Stat. 514),” in *Department of Defense Documents on Establishment and Organization 1944-1978*, Alice C. Cole et al. (Washington D.C.: Office of the Secretary of Defense Historical Office, 1978), 200.

¹¹² President Eisenhower’s Message to Congress-3 April 1958, 180.

¹¹³ Ibid.

¹¹⁴ Gilbert W. Fitzhugh, Report to the President and the Secretary of Defense on the Department of Defense by the Blue Ribbon Defense Panel, 1 July 1970, 29, 32.

¹¹⁵ President Eisenhower’s Message – 3 April 1958, 179.

specified combatant command. All forces not so assigned remain for all purposes in their respective departments.”¹¹⁶

The significance of this was stated by Chief of Naval Operations, Admiral Arleigh Burke, “The heart and soul of these reorganization acts is to strengthen and streamline our proven systems of unified command—to speed up reaction time, to simplify the chain of command, and to dispel any doubts as to the authority of the unified commanders.”¹¹⁷ He went on to say, “The unified commanders now have full control over any forces that may be required to fight.”¹¹⁸

The Services would provide the forces to the unified commands and specified commands. As provided by the act, they would also provide the administration and support.

Under the direction, authority, and control of the Secretary of Defense each military department shall be responsible for the administration of forces assigned from its department to such combatant commands. The responsibility for the support of the forces assigned to combatant commands shall be vested in one or more of the military departments as may be directed by the Secretary of Defense.”¹¹⁹

Again, Admiral Burke provided the significance by stating, “Unified commanders will focus their attention on combatant missions assigned by the Secretary of Defense. They will not be expected to concern themselves with details of producing combat-ready forces; they will be *assigned* to them.”¹²⁰

To further clarify the responsibilities of the Services and the combatant commanders, Department of Defense Directive 5100.1, dated 31 December 1958, plainly distinguished between missions and functions. The President and Secretary of Defense made commanders of unified and specified commands responsible for military

¹¹⁶ House, *Department of Defense Reorganization Act of 1958: Hearings Before the Committee on Armed Services United States Senate*, 85th Cong., 2d sess. 1958, HR 12541, 4.

¹¹⁷ Statement of Admiral Arleigh Burke, United States Chief of Naval Operations, in House, *Department of Defense Reorganization Act of 1958: Hearings Before the Committee on Armed Services United States Senate*, 85th Cong., 2d sess. 1958, HR 12541, 113.

¹¹⁸ *Ibid.*, 125.

¹¹⁹ House, *Department of Defense Reorganization Act of 1958*, 4.

¹²⁰ Burke, *Department of Defense Reorganization Act of 1958*, 115.

missions.¹²¹ The functions of the Military Departments and Services were changed to include “organize, train, and equip forces for assignment to unified and specified commands.”¹²² This made it even clearer that Eisenhower’s intent was for the combatant commanders to conduct unified military operations using the forces provided by the Services performing their functions as established by law. Stated today:

“The primary function of the Services is to provide forces organized, trained, and equipped to perform a role of being employed by the combatant commander in the accomplishment of the mission.”¹²³

One point relating to bombers was the change in the Air Force’s function to “conduct strategic warfare.” Strategic Air Command was a specified command with the Air Force as the only Service component. However, before the reorganization of 1958, the Air Force had the primary function to “conduct strategic warfare.” Directive 5100.1 changed that function to “organize, train, and equip Air Force forces for strategic air warfare.”¹²⁴ This clarified that strategic air warfare was not the mission of the Air Force. Rather, the Air Force was to provide forces to the specified command, albeit still the Air Force, for conducting strategic air warfare.

Goldwater-Nichols Act of 1986

The Goldwater-Nichols Department of Defense Reorganization Act of 1986 was an extension of the Reorganization Act of 1958 and another attempt to ensure the military was prepared to fight under a unified command. The Vietnam War and the bombing of the marine barracks in Beirut were just a few examples that indicated the structure of the Department of Defense needed reorganization. The unified command structure, which President Eisenhower intended in 1958, still did not exist. As Senator Barry Goldwater put it when referring to the Vietnam War, “We never had unity of command.”¹²⁵

¹²¹ Department of Defense Directive Number 5100.1, in *Department of Defense Documents on Establishment and Organization 1944-1978*, Alice C. Cole et al. (Washington D.C.: Office of the Secretary of Defense Historical Office, 1978), 316.

¹²² *Ibid.*, 320.

¹²³ Joint Publication 0-2, *Unified Action Armed Forces*, 10 July 2001, I-6.

¹²⁴ Department of Defense Directive Number 5100.1, 324.

¹²⁵ House Committee on Armed Services, *Report on Bill Nichols Department of Defense Reorganization Act of 1986 on H.R. 4370*, 99th Cong., 2d sess., 21 July 1986, 37.

The Goldwater-Nichols Act gave commanders of unified and specified commands authority that they did not previously possess. According to the 1958 Reorganization Act, forces assigned to combatant commands were placed under the *full operational command* of the unified or specified commander, which the Joint Chiefs of Staff later termed as *operational control*.¹²⁶ The Services retained *full command* over forces assigned to the combatant command, which limited the combatant commander's control over non-operational matters. A Presidential Blue Ribbon Panel concluded in 1986 that commanders of unified or specified commands required broader authority than "operational command," as understood and practiced, in order to meet the heavy responsibilities that their missions placed on them.¹²⁷ The panel concluded, "Unified commanders should be given broader authority to structure subordinate commands, joint task forces, and support activities in a way that best supports their mission and results in a significant reduction in the size and numbers of military headquarters."¹²⁸ The bill authorized the combatant commanders to specify chains of command and organizational relationships within their commands. They were given authority over selection, retention, and evaluation of forces assigned to them.¹²⁹ The commander was given increased authority over assigned forces for issues concerning personnel, logistics, joint training, court-martial authority, as well as those items mentioned by the Blue Ribbon Panel.¹³⁰

COCOM became one of several new terms added to Joint Doctrine because of the increased authority given to the combatant commander.¹³¹ However, COCOM was held only by the combatant commander and could not be delegated nor transferred. This created a need for other terms in Joint Doctrine to indicate what type of control over forces the combatant commander could delegate to commanders at lower levels.

¹²⁶ Fitzhugh, 51.

¹²⁷ David Packard et al., *Interim Report to the President*, President's Blue Ribbon Commission on Defense Management (Washington D.C.: Government Printing Office, February 28, 1986), 10.

¹²⁸ *Ibid.*, 12.

¹²⁹ Senate Committee on Armed Services United States, *Department of Defense Reorganization Act of 1986*, 99th Cong., 2d sess., 1986, 3.

¹³⁰ *Ibid.*, 40-41.

¹³¹ This was determined by comparing Senate and House legislation, as well as Title 10 wording to the authority provided under Combatant Command in Joint Publication 0-2. This was confirmed by interviews with Joint Staff, J7, who is charged with writing Joint Doctrine.

Two levels of authority, OPCON and TACON, became terms that indicated a level of control at or below the combatant commander level. OPCON was inherent in COCOM as TACON was inherent in OPCON meaning if the commander can delegate the authority, then he has the authority. They were command authorities that could be delegated by the combatant commander or exercised over forces attached to the combatant command that conveyed command authority less than the full authority provided by USC Title 10. The authority conveyed as operational control was the same as operational command, as defined from the Reorganization of 1958.¹³² TACON became an authority, which commanders who exercised OPCON, could delegate to even lower echelons.¹³³ TACON allowed for local direction and control of movements to accomplish the mission.¹³⁴ OPCON and TACON were levels of control that could be exercised over *assigned* or *attached* forces.

The word *attached* is important in doctrine because it denotes forces that are temporarily assigned to another unified command. The wording provided by the Goldwater-Nichols Act increased the combatant commander's authority over forces *assigned* to the command. USC Title 10 states, "Except as otherwise directed by the Secretary of Defense, all forces operating within the geographic area assigned to a unified combatant command shall be assigned to, and under the command of, the commander of that command."¹³⁵ However, JP 0-2 adds the word *attached* to indicate forces assigned by the Secretary of Defense on a temporary basis.¹³⁶ Normally, only OPCON is exercised over *attached* forces but this may vary at direction of the Secretary of Defense. Since bombers are permanently *assigned* to USJFCOM, they are normally *attached* to another combatant command for missions of that command.

¹³² Full Operational Command quoted in a 1970 Presidential Blue Ribbon Panel studying the DOD organizational structure is the same as the basic authority provided under OPCON in JP 0-2. Fitzhugh, 49; JP 0-2, III-8.

¹³³ TACON is limited to detailed direction and control of movements and maneuvers within the operational area necessary to accomplish assigned missions or tasks. TACON provides the authority to give direction for military operations and control designated forces (e.g., ground forces, aircraft sorties, missile launches, or satellite payload management). JP 0-2, III-8.

¹³⁴ JP 0-2, III-2.

¹³⁵ *Combatant Commands: Assigned Forces; Chain of Command*, U.S. Code, vol. 4, Title 10, section 162a(4), 2 January 2001.

¹³⁶ JP 0-2, III-2, 3.

The legislation was designed to give increased authority to the combatant commanders in their AOR. However, the various levels of control have created confusion as to when operational control of bombers should change from USJFCOM to another command. Some senior Air Force leaders even indicate that they do not want OPCON of bombers in the U.S., rather only TACON. These additional command authorities were not meant to decrease the level of control in theater. This chapter emphasized the link between operational control and the assigned mission. The next chapter will explain in more detail the difference between the various command authorities and apply them to the missions of USJFCOM and the other unified commands in which bombers will operate.

Chapter 4

Command Authorities and the Mission

The fact that long-range bombers operate across multiple theaters and that there are varying levels of control somewhat confuses the issue of who is in control. This chapter will try to eliminate some of the confusion by taking a closer look at unified commands and the command relationships within the command structure, provided by Joint doctrine. In addition, the previous chapters lead to the conclusion that operational control of bombers should be with the theater commander charged with accomplishing the mission. Understanding when operational control should change thus depends upon understanding the mission of the unified command.

Unified Commands

There are currently five geographic and four functional unified commands established under the Unified Command Plan (UCP)¹³⁷. Geographic combatant commanders are assigned a geographic AOR while functional combatant commanders are assigned global responsibilities for transportation, space, nuclear, or special operations.¹³⁸ The UCP sets forth guidance to all unified commanders. It establishes their missions, responsibilities, force structure, as well as delineates their geographic AOR, or in the case of functional combatant commanders, specifies functional responsibilities.¹³⁹ The five geographic commands include United States Joint Forces Command, Central Command, European Command, Pacific Command and Southern Command.¹⁴⁰ The four functional commands include United States Transportation

¹³⁷ There are currently no specified commands.

¹³⁸ Joint Publication 0-2, *Unified Action Armed Forces* (UNAAF), 10 July 2001, II-12.

¹³⁹ *Ibid.*, I-3.

¹⁴⁰ The latest revision to the UCP unveiled a new geographic command, Northern Command (NORTHCOM), which is due to stand up on 1 October 2002. NORTHCOM and EUCOM will absorb the geographic region of USJFCOM, making USJCOM free to focus on its functional mission of transforming the military, including experimentation; innovation; improving interoperability; reviewing, validating, and writing joint doctrines; preparing battle-ready joint forces and coordinating joint training simulations and models. Donald H. Rumsfeld, Secretary of Defense, and Richard Myers, Chairman of the Joint Chiefs of

Command, Space Command, Strategic Command, and Special Operations Command.¹⁴¹ Finally, the forces assigned to each command are outlined in the “Forces for Unified Commands” memorandum.¹⁴²

Operational control is usually delegated to components below the combatant command level. There are always Service components within a unified command. The combatant commander may also choose to establish functional air, land and sea components for actual operations within the AOR.

Each command is comprised of air, land, and sea forces from the Military Departments, which are permanently assigned to combatant commands under Service component commands.¹⁴³ The primary focus of this discussion is the Air Force component assigned to each command. Air Combat Command (ACC) is the Air Force component for U.S. Joint Forces Command, U.S. Pacific Air Force (PACAF) for U.S. Pacific Command and U.S. Air Forces Europe (USAFE) for U.S. European Command.¹⁴⁴ The commander of the Air Force forces (COMAFFOR) for a unified command has the ultimate responsibility for the administration and support of Air Force forces assigned or attached to the command.

The structural organization of the unified command is completely up to the combatant commander or joint/sub-unified commanders below the combatant commander. Figure 3 provides an example of a typical unified command structure. Joint doctrine describes an air power functional component to ensure unity of effort of all air assets in a theater.¹⁴⁵ The air component could consist of Air Force, Navy, and Marine air assets and the air component commander could come from any of those Services. The commander is usually chosen from the Service that has the preponderance of forces in theater and the ability to plan, task, and control those forces.¹⁴⁶ If the force is Joint, then the commander is a Joint Force Air Component Commander (JFACC) or Combined

Staff, “Special Briefing on the Unified Command Plan,” address, Pentagon, Washington D.C., 17 April 2002, on-line, Internet, available at http://www.defenselink.mil/news/Apr2002/t04172002_t0417sd.html.

¹⁴¹ Ibid., II-14-16.

¹⁴² Ibid., III-3.

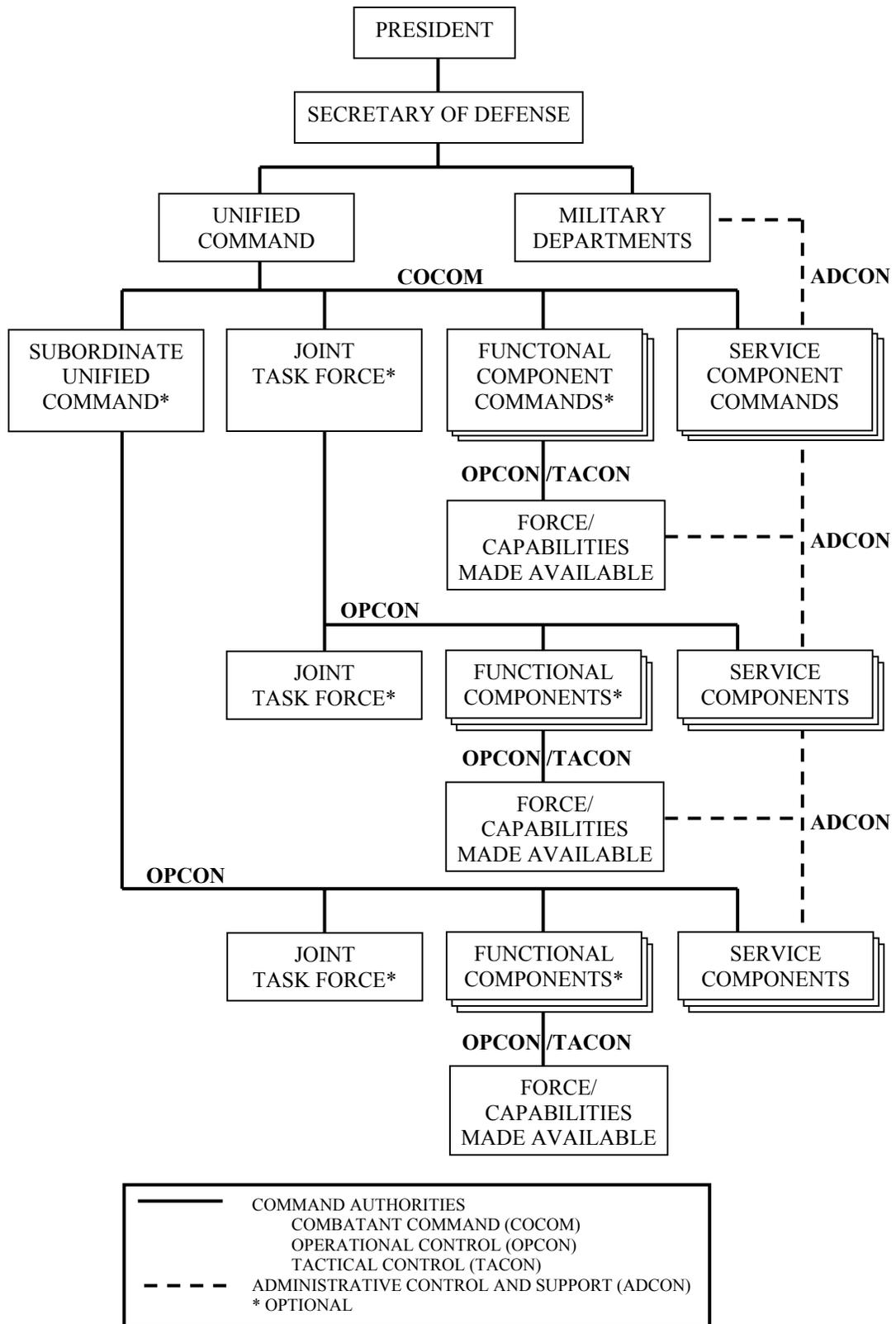
¹⁴³ Ibid., I-9.

¹⁴⁴ “Unified Combatant Commands,” on-line, Internet, 18 February 2002, available at http://www.defenselink.mil/pubs/almanac/organization.Combatant_Commands.html.

¹⁴⁵ Joint Publication 3-56.1, *Command and Control for Joint Air Operations*, 14 November 1994, I-2.

¹⁴⁶ Ibid., II-2.

Force Air Component Commander (CFACC) in the case of multinational operations. To simplify this discussion, the air component commander is also the commander of Air Force Forces.



(Source: Joint Publication 0-2, 10 July 2001, V 1-10.)

Figure 3. Chain of Command and Control

In the dual-branch structure, the COMAFFOR, who is also the JFACC, is dual-hatted and exercises both operational and administrative control of Air Force assets. In the Service branch, the COMAFFOR is responsible to the Chief of Staff of the Air Force and the Secretary of the Air Force for administrative and support responsibilities of Air Force assets. In the unified command branch, the same commander, reports to the combatant commander and exercises operational authority delegated by the combatant commander. A key to understanding operational control is to know when decisions are made under operational control and when under administrative control, especially when a commander is dual-hatted.

ADCON versus OPCON

Before going any further, it is important to clarify the difference between administrative control (ADCON) and OPCON. The two are often confused because many commanders view the mission at their level as an operational mission, of which they are in control.¹⁴⁷ However, when referring to operational control in the Joint environment, it has a different meaning. Figure 3. shows the dual branch chain of command for exercising ADCON and OPCON.

ADCON is the authority necessary for the Services to fulfill Military Department statutory (Title 10) responsibilities for administration and support of forces employed by the unified commands.¹⁴⁸ However, it is not a command authority as used in doctrine. The most often used term to describe administrative control is the Services' "provide, train, and equip" responsibility. A method for determining who has ADCON responsibility is to identify the theater in which the aircraft is on the ground or bed-down theater in the case of deployed operations.¹⁴⁹ This may apply to aircraft that are temporarily on the ground to refuel, change out aircrew, etc. or aircraft that have deployed from their permanently assigned base to a forward operating location (FOL). When on the ground in another AOR, some administrative control will go to the bed-

¹⁴⁷ John L. Barry, Brig. Gen., USAF, "Who's in Charge? Service Administrative Control," *Airpower Journal*, Fall 1998, Vol. XII, No. 3, 32.

¹⁴⁸ JP 0-2, III-11.

¹⁴⁹ Air Force Doctrine Center, "Doctrine Watch #3: Operational Control (OPCON), Aerospace Commander's Handbook for the JFACC, 1999, CD-ROM, HQ Air Force Doctrine Center, 16 April 2001.

down theater COMAFFOR, while the commander of Air Force Forces at the permanent base location retains ultimate responsibility for the administration and support for its deployed forces.

While the bombers are stationed in the U.S., ACC has full ADCON responsibility. However, when bombers deploy to another AOR, the COMAFFOR for that AOR assumes a specified ADCON as stipulated in the deployment order (e.g., when bombers deploy to Anderson Air Force Base, Guam, USPACAF assumes a certain amount of administrative and support responsibility, while ACC retains ultimate responsibility for ADCON). According to Air Force Doctrine Document 2-0, some of the COMAFFOR's specified ADCON responsibilities when Air Force forces are deployed into their theaters include:¹⁵⁰ (for a full list see appendix A)

- Make recommendations to the Joint Force Commander (JFC) on the proper employment of US Air Force component.
- Accomplish assigned tasks for operational missions.
- Nominate specific units of the Air Force for assignment to theater forces.
- Inform the JFC (and the combatant commander, if affected) of planning for changes in logistics support that would significantly affect operational capability or sustainability sufficiently early in the planning process for the JFC to evaluate the proposals prior to final decision or implementation.
- Maintain discipline, including application of the UCMJ.
- Establish force protection requirements.

Operational control, on the other hand, occurs in the Joint or unified branch. OPCON derives from the authority given to the combatant commander by USC, Title 10. The key point is that, "OPCON provides the commander the authority to accomplish the assigned operational mission."¹⁵¹ Therefore, OPCON corresponds to the mission whereas ADCON, specified or full, corresponds to the location in which the force is on the ground. If aircraft and personnel are permanently assigned to an AOR, then OPCON resides with the combatant commander and ADCON with the COMAFFOR for that theater. "Support" is another command relationship that Joint doctrine describes as an alternative to changing operational control.

¹⁵⁰ Air Force Doctrine Document 2, *Organization and Employment of Aerospace Power*, 17 February 2000, 52-53.

¹⁵¹ Doctrine Watch #3: Operational Control (OPCON).

Support Authority

Support is an additional command authority provided by Joint Doctrine that should be mentioned as an alternative to changing operational control. Joint Doctrine describes support as a relationship established by a superior commander between subordinate commanders when one organization should aid, protect, complement, or sustain another force.¹⁵² Under this command relationship, the supporting commander determines the forces, tactics, methods, procedures, and communications to be employed in providing support.¹⁵³ The supported commander will have the authority to exercise general direction of the supporting effort.¹⁵⁴ USJFCOM supports other combatant commanders by providing forces. However, support, as a Joint doctrine command authority, is more relevant for commanders with a scope of responsibility beyond a specific theater. Two such examples are USTRANSCOM and USSPACECOM supporting other unified commands.

Because of the global nature of space forces, United States Space Command normally retains operational control of most space assets.¹⁵⁵ USSPACECOM is a functional unified command that satisfies mission requirements across multiple AORs. Therefore, it is reasonable to assume that they would normally retain operational control of assets that will provide effects to more than just one unified command. USSPACECOM may even retain OPCON of forces that deploy to the theater if they will have a global impact. However, tactical control over global space forces producing “theater-only effects” may be given to a theater commander if command authority beyond a support relationship is required and the commander has the ability to command and control the forces.¹⁵⁶

Similar to USSPACECOM, United States Transportation Command has a global function of transportation management across all of the geographic regions.¹⁵⁷

¹⁵² JP 0-2, III-9.

¹⁵³ Ibid.

¹⁵⁴ Ibid.

¹⁵⁵ Air Force Doctrine Document 2-8, *Command and Control*, 16 February 2001, 36.

¹⁵⁶ Air Force Doctrine Document 2-2, *Space Operations*, 27 November 2001, 20-21.

¹⁵⁷ Air Force Doctrine Document 2-6, *Air Mobility Operation*, 25 June 1999, 14.

USTRANSCOM normally retains OPCON for forces necessary to accomplish its global inter-theater mission. USTRANSCOM delegates OPCON to its tanker airlift control center (TACC), which acts as the single point of contact for inter-theater air mobility.¹⁵⁸ For intra-theater air mobility, OPCON or TACON is normally delegated to the theater commander, if the theater commander will fully employ them.¹⁵⁹

In both cases, experts on both space and air mobility are represented in the theater air operations center to ensure proper coordination. The Director of Mobility Forces is the COMAFFOR's designated coordinating authority for air mobility with all command agencies both internal and external to the theater.¹⁶⁰ Likewise, to facilitate the support relationship between space commanders and appropriate theater commanders, a direct liaison authority (DIRLAUTH) relationship is established. As stated in Air Force Doctrine, "This enables integration and synchronization of space forces and effects with theater operations, and enables the theater warfighters to coordinate directly, at either the same level or differing organizational levels."¹⁶¹ The key distinction to draw from both of these functional commands is that OPCON still goes forward if the theater commander can fully employ and control the forces.

Contrary to space and air mobility assets, bombers are usually focused on employment in one region and therefore should be controlled by one theater air commander. However, Lieutenant General Thomas Keck offers some valuable insight into a supporting role USJFCOM assigned bombers might offer rather than simply changing OPCON or TACON.¹⁶² There is a possibility that good advice to theater commanders could be lost because of a lack of appropriate representation in theater. General Keck stated, "Relying too much on simply changing OPCON or TACON can take the educated voice out of the decision process, leaving important decisions to leaders who do not have experience either with the weapons or their effects."¹⁶³ General Keck states well the point that there must be experts in the weapon system involved in the operational planning process.

¹⁵⁸ AFDD 2-8, 37.

¹⁵⁹ AFDD 2, 46.

¹⁶⁰ AFDD 2-6, 20.

¹⁶¹ AFDD 2-2, 20-21.

¹⁶² Thomas Keck, Lieutenant General, USAF, Eighth Air Force Commander, interviewed by author, 18 February 2002.

¹⁶³ Ibid.

To ensure bombers are employed to the fullest potential, personnel from the wings supporting operations from the U.S. are often placed in theater as liaison officers (LNO). Similar to the SAC ADVON concept during Vietnam, LNOs are experts in bomber operations thus ensuring capabilities are understood in theater. In the AOC, they are at the heart of planning and provide a critical link between the theater and the wing.

The Mission of United States Joint Forces Command

As stated earlier, operational control depends upon the mission assigned to the unified command. United States Joint Forces Command is a unique unified command in that it is both a geographic and functional command.¹⁶⁴ Since all U.S. bombers are assigned to USJFCOM, it is worthwhile to look at the mission of USJFCOM in order to determine where they would exercise operational control. Some of their responsibilities are clearly distinguishable as geographic or functional responsibilities. As a geographic unified command, they are responsible for:¹⁶⁵

- Providing, within CONUS, military assistance to civil authorities including consequence management operations in response to nuclear, radiological, chemical, or biological weapons of mass destruction incidents.
- Planning for the land defense of CONUS, domestic support operations to assist government agencies, and the bi-national Canada-US land and maritime defense of the Canada-US region

Neither of these responsibilities is likely to require the employment of bombers. As a functional unified command, USJFCOM's functional responsibilities include:

- Lead joint force integrator and trainer.
- DOD executive agent for joint warfighting experimentation.
- Supporting the joint doctrine development program.

Operational control of bombers would be required for USJFCOM exercises and training in which bombers are involved. However, for combat operations, USJFCOM

¹⁶⁴ "United States Joint Forces Command," on-line, Internet, 2 May 2002, available at <http://www.jfcom.mil/main/About/about2.htm>.

¹⁶⁵ JP 0-2, II-14-15.

has the responsibility to provide joint forces to other combatant commanders for employment.

USJFCOM's responsibility as "joint force provider of its assigned continental United States (CONUS)-based forces" leads to the question of their role in exercising operational control of bombers operating from the CONUS but employed in another AOR.¹⁶⁶ The answer to this becomes a factor when determining when operational control should change. Does USJFCOM consider providing forces to be exercising operational control? If so, should Air Combat Command be involved in the operational planning of operations in which the bomber will operate? On the other hand, does USJFCOM only exercise operational control during Joint exercises or for contingencies within its geographic region? In this case, once contingencies start in another AOR, the bomber forces that will be attached to that AOR would come under OPCON of the gaining theater commander as soon as the President and Secretary of Defense commit them to augment theater operations. To get a better understanding of how to answer these questions, it is worthwhile to examine the origin of CONUS based forces as reserve forces for other unified commands.

United States Strike Command (USSTRICOM) was activated on 1 January 1962 and assumed operational control over CONUS forces available for immediate overseas deployment. Consisting primarily of tactical assets, its mission was to provide a general reserve for reinforcement of other unified commands, train assigned forces, develop joint doctrine, and plan for and execute contingency operations if ordered by the JCS.¹⁶⁷ USSTRICOM was replaced in 1971 by United States Readiness Command (USREDCOM), which had essentially the same mission as USSTRICOM.¹⁶⁸ However, in 1987, USREDCOM was disestablished and its Army component, Forces Command (FORSCOM), became a specified command with the mission of land defense of CONUS and Alaska. All USAF tactical fighter squadrons were assigned to combatant commanders overseas, although most were still stationed in the United States.¹⁶⁹

¹⁶⁶ JP 0-2, II-14.

¹⁶⁷ Ronald H. Cole, et al., *The History of the Unified Command Plan 1946-1993* (Washington D.C.: Joint History Office, 1995), 33.

¹⁶⁸ *Ibid.*, 41.

¹⁶⁹ Air Force quote cited in, Ronald H. Cole, *The History of the Unified Command Plan 1946-1993*, 99.

At a CINC's conference in August of 1992, General Colin Powell, Chairman of the Joint Chiefs of Staff, reopened the question of whether there should be a permanent CONUS-based command designed to deal with contingencies.¹⁷⁰ One alternative was to make ACC a specified command, as was FORSCOM. However, General Powell recommended another alternative, which was to assign all CONUS-based Army and Air Force Units to USLANTCOM, making it the joint force integrator, and disestablish FORSCOM as a specified command. His rationale was that while the joint/unified system worked well overseas, CONUS forces were still Service-oriented.¹⁷¹ As the US presence overseas shrank, it became more important that CONUS-based forces "be trained to operate jointly as a way of life and not just for occasional exercises."¹⁷² Growing acceptance of jointness opened the way toward this last step in unification. ACC as well as FORSCOM became components in a unified command. A single combatant command would ensure the joint training and readiness of response forces. This marked the first time Atlantic Command (now USACOM) had permanent, peacetime control of major elements from all services.¹⁷³

A 1995 Report on Roles and Missions of the Armed Forces recommended creating a functional Unified command responsible for Joint Training and Integration of forces based in the continental United States.¹⁷⁴ Most U.S. forces are stationed in the CONUS, although they can be apportioned to, and employed in, the AOR of any geographic CINC. The commission advocated a command that concentrated on preparing the forces in the CONUS for joint operations, to include deployment planning. They endorsed the assignment of the functional mission to U.S. Atlantic Command, which had occurred in 1993. However, USACOM was still a geographic CINC, which gave it the responsibility for tasked missions from the Secretary of Defense for its AOR. The commission recommended separating the geographic and functional "joint force integrator" missions currently assigned to ACOM – creating a functional command with command specific responsibilities for providing well-trained forces to other CINCS for

¹⁷⁰ Ronald H. Cole, 113.

¹⁷¹ Ibid.

¹⁷² Ibid.

¹⁷³ "About U.S. Joint Forces Command," on-line, Internet, 3 May 2002, available at <http://www.jfcom.mil/main/About/History/ABTHIST4.HTM>.

¹⁷⁴ Department of Defense, *Defense Direction Commission on Roles and Missions of the Armed Force* (Washington D.C.: Government Printing Office, 1995), 2-9.

employment.¹⁷⁵ Finally, in 1999 Atlantic Command was changed to United States Joint Forces Command to emphasize the command's role in leading transformation of U.S. military forces but retained a geographic responsibility.¹⁷⁶

The history of unified commands providing forces is analogous to ADCON responsibility of the Services when those forces will operate outside of a unified command's AOR. Their task has been to provide the joint-trained forces for other unified commanders to employ while the Services provide forces for Joint commands to employ. USJFCOM continues this tradition and does not exercise operational control over forces deployed to another AOR. Therefore, should they exercise operational control of bombers that are committed to another theater but do not deploy? This discussion in the next chapter will help lead to a determination of when to change operational control.

¹⁷⁵ Ibid., 2-10.

¹⁷⁶ About U.S. Joint Forces Command.

Chapter 5

Evaluation and Recommendations

U.S. military command authority is usually, and intentionally, diffused, almost always divided in bewilderingly complex ways, and often delegated through myriad layers that literally encourage misunderstanding of the orders of higher authorities.

*Bill Nichols Department of Defense Reorganization Act of 1986
Committee on Armed Services U.S. House of Representatives
H.R. 4370*

Once it is understood that operational control is associated with the mission, it becomes a little clearer when USJFCOM should relinquish operational control of bombers being employed in another AOR. During peacetime, Joint Forces Command will generally exercise operational control. But, during actual combat operations, another unified command will likely exercise OPCON. This chapter examines the three options presented in Chapter 1 against the criteria of “assigning operational control based upon the mission.”

The three options for changing operational control are (1) transfer of operational control no later than takeoff, (2) transfer at a geographic boundary associated with the supported commander’s AOR, (3) transfer as early as sortie generation. The first two are both found in Air Force Doctrine, which in and of itself leads to confusion, since they contradict.¹⁷⁷ The third stems from the *Joint Forces Air Component Handbook*, also published by the Air Force Doctrine Center.¹⁷⁸

A determination of when to change operational control occurs as a part of assigning a mission to the gaining command. The command relationship change may be identified in a Joint Chiefs of Staff Warning Order, Planning Order, Alert Order, Operation Order, Execute Order or in other tasking methods.¹⁷⁹ Each of these orders

¹⁷⁷ Air Force Doctrine Document 2, *Organization and Employment of Aerospace Power*, 17 February 2000, 45 and 122.

¹⁷⁸ Air Force Doctrine Center, “Aerospace Commander’s Handbook for the JFACC,” 27 June 2001, 21, *Aerospace Commander’s Handbook for the JFACC*, CD-ROM, Air Force Doctrine Center, 1 November 2001.

¹⁷⁹ AFDD 2, 99-123.

specifies the supported command for the tasked mission and the supporting commands, as well as the timing of the change. Since the timing of the deployment and the direction of the mission occur nearly simultaneously, it is easy to associate changing operational control of bombers with deployment. However, this confuses the issue when bombers do not deploy. Further confusion arises from the examples of Planning, Alert, and Execute Orders found in Air Force doctrine. The examples state the change of command relationship usually occurs at the “AOR boundary,” which corresponds to what is written in Air Combat Command’s “Bomber Concept of Operations” draft.¹⁸⁰ However, this is in contradiction with a statement in the same document, which says, “CONUS-based forces that launch from the CONUS, conduct operations in another theater, and recover to CONUS should transfer OPCON to the supported CINC/JFC no later than sortie takeoff.”¹⁸¹ In addition to the contradiction, associating change of operational control with “sortie takeoff” or “AOR boundary crossing” insinuates that operational control is a temporary control.

Since the mission is an ongoing process, operational control should be maintained throughout the mission rather than throughout a sortie. Stated another way, OPCON is not just something that goes along with the aircraft while it is flying. Operations continue until the mission is concluded, or until such time that the Secretary of Defense changes the command authority. If this were not so, it would essentially mean that for the same mission assigned to a unified command, bomber sorties would be planned under the operational control of one command while executed under another, thus violating the principle of unity of command. In fact, all the functions of operational control are continuously taking place in the theater’s Air Operations Center (AOC).

The AOC is the focal point for both theater air operations and COMAFFOR command decisions therefore making the AOC functions and OPCON functions one in the same.¹⁸² Depending on whether the COMAFFOR is also the JFACC, the COMAFFOR’s staff may be the core of the JFACC staff. If so, the responsibilities of OPCON delegated to the COMAFFOR/JFACC combine with AOC responsibilities. Therefore, the AOC exercises operational control because it tasks bombers for

¹⁸⁰ Ibid., 105-123.

¹⁸¹ Ibid., 45.

¹⁸² Air Force Doctrine Document 2-8, *Command and Control*, 16 February 2001, 28.

employment. The point of this is that, even if operational control were not assigned, it would still be in practice by the actions of the AOC. This reality provides more evidence that operational control should go to the combatant commander with the operational mission from the beginning of tasking to the end.

To eliminate the confusion and ensure the change of operational control is tied to the mission, the change should be consistent whether the aircraft does or does not deploy. The majority of doctrine concerning changing operational control is written for the assets that deploy. The same change takes place, even if bombers do not deploy. When bombers deploy, it is clear that the gaining command has operational control and can employ the forces made available. The change in control remains until the bombers return to their permanent location. The same indication of readiness should occur if the bomber does not deploy. This may be easier to visualize by comparing bombers that do not deploy to an example where bombers have deployed but still employ in a different AOR from which they are based.

During recent operations in Afghanistan, Operation Enduring Freedom, B-1s and B-52s flew from Diego Garcia, which is in USPACOM's AOR.¹⁸³ They were under a specified administrative control of US Pacific Air Force, as the Air Force component command for USPACOM. Since Afghanistan is part of USCENTCOM's AOR, they were placed under the operational control of Central Command. The original change of operational control from USJFCOM to USCENTCOM may have occurred at takeoff from the home base or when crossing into USCENTCOM's AOR. Either way, once USCENTCOM had control, they maintained it until the bombers returned home.¹⁸⁴ The relationship should be no different for bombers employed directly from the CONUS. However, there must be some way of identifying when the bombers are ready for sustained operations.

The term generation provides an indication of when bombers are ready for employment. For bombers, generation has most often been associated with preparing aircraft for the STRATCOM nuclear missions. As part of generation, aircraft are loaded with fuel and weapons for a specific mission. In addition, the aircrew conducts mission

¹⁸³ Borgna Brunner, "Where in the World is Diego Garcia," on-line, Internet, 28 May 2002, available at <http://www.infoplease.com/spot/dg/html>.

¹⁸⁴ This real-world example is a direct scenario also published in Air Force Doctrine. AFDD 2, 46.

planning and inspects the aircraft to ensure it is ready to launch. Once ready for the mission, the aircraft and aircrew are placed on alert status and placed under the operational control of United States Strategic Command. USSTRATCOM has the authority, from the President, to launch the bombers on their assigned mission.

Generation is not limited to nuclear operations; rather it is a term used daily to indicate the preparation of aircraft for flight. For conventional operations, the aircraft and aircrew are still generated to an increased level of readiness. During Operation Enduring Freedom, the term generation was used to specify when USCENTCOM assumed operational control of B-2s, flying from Missouri. The Commander of CENTCOM wanted the authority to launch the B-2s once they were ready.¹⁸⁵ If operational control were not assumed until takeoff, CENTCOM would have to contact USJFCOM to launch the aircraft.

Recommendation

The research shows that operational control should be with the theater commander. The history of bomber operations, as well as legislation, supports the concept that a commander in the theater should have control of the forces that will be employed in that theater. To ensure unity of command, the control should be unambiguous. Likewise, the control should last for the duration of operations. Therefore, of the three options available, changing operational control upon generation appears most appropriate.

Operational control of bombers employed from the continental United States should change from USJFCOM to the gaining command once the wing is ready to support sustained operations required in the tasking order. An example of the wording in the tasking order might be as follows:

FOR OPERATION BIG HAMMER, UNITED STATES CENTRAL
COMMAND IS THE SUPPORTED COMBATANT COMMAND.
UNITED STATES JOINT FORCES COMMAND IS THE
SUPPORTING COMMAND. UNITED STATES JOINT FORCES

¹⁸⁵ Joint Staff (J-3), Pentagon, interviewed by author, 20 February 2002.

COMMAND WILL MAKE AVAILABLE TWO B-2 SORTIES PER DAY FOR THE DURATION OF OPERATION BIG HAMMER OR UNTIL RESCINDED BY THE SECRETARY OF DEFENSE. UNITED STATES CENTRAL COMMAND WILL EXERCISE SPECIFIED OPERATIONAL CONTROL OVER THE 509TH BOMB WING FOR TASKING OF SORTIES MADE AVAILABLE.

Operational control of bombers employing from the United States should be easily understood from the outset of operations. Changes in Air Force Doctrine could help alleviate some of the confusion. Doctrine is relatively clear that operational control is tied to the mission. However, it creates confusion by not clearly distinguishing between changing operational control of bombers that deploy and those that do not. This problem should be addressed when updating Air Force Doctrine.

In addition, standing agreements between USJFCOM and the other regional commands should be developed to alleviate confusion concerning operational control of bombers employed from the United States. These agreements could be similar to the Command Arrangements Agreements (see appendix B) developed between SAC and the other combatant commands. This will provide unambiguous direction for operational control that can be debated upon during peace to avoid confusion when conflict arises.

APPENDIX A

Air Force Doctrine Document 2

10 July 2001

THE COMMANDER, AIR FORCE FORCES

Whether the COMAFFOR is delegated OPCON of the Air Force component forces or not, the COMAFFOR has the following specified ADCON responsibilities:

- Make recommendations to the JFC (or the JFACC, if the COMAFFOR is not the JFACC) on the proper employment of the forces of the US Air Force component.
- Accomplish assigned tasks for operational missions.
- Nominate specific units of the Air Force for assignment to theater forces. Actual unit and personnel sourcing will follow established US Air Force procedures.
- Organize, train, equip, and sustain assigned and attached Air Force forces for in-theater missions.
- Maintain reach back to the US Air Force component rear and supporting Air Force units. Delineate responsibilities between forward and rear staff elements.
- Support operational and exercise plans as requested.
- Inform the JFC (and the combatant commander, if affected) of planning for changes in logistics support that would significantly affect operational capability or sustainability sufficiently early in the planning process for the JFC to evaluate the proposals prior to final decision or implementation.
- *Develop program and budget requests that comply with combatant commander guidance on war-fighting requirements and priorities.
- *Inform the combatant commander (and any intermediate JFCs) of program and budget decisions that may affect joint operation planning.
- Provide lateral liaisons with Army, Navy, Marines, SOF, and coalition partners.
- Maintain discipline, including application of the UCMJ.
- Establish force protection requirements.
- (*Normally, this is retained by the combatant command level Service component commander.)

When the COMAFFOR is delegated OPCON of the US Air Force component forces, and there is no JFACC, the COMAFFOR has the following **OPCON responsibilities**: Prepare an aerospace estimate of the situation to support the JFC's estimate.

- Develop and recommend COAs to the JFC
- Develop an aerospace strategy and operations plan that states how the COMAFFOR plans to exploit aerospace capabilities to support the JFC's objectives.

- Establish (or enforce, when passed down by the JFC) theater rules of engagement (ROEs) for all assigned and attached forces.
- Make air apportionment recommendations to the JFC.
- Task, plan, coordinate, and allocate the daily aerospace effort.
- Serve as the supported commander for counterair operations, strategic attack, the JFC's overall air interdiction effort, and theater airborne reconnaissance and surveillance. As the supported commander, the JFACC has the authority to designate the target priority, effects, and timing of these operations and attack targets within land and naval AOs.
- Function as the supporting commander, as directed by the JFC, for operations such as close air support (CAS), air interdiction within the land and naval component areas of operations (AOs), and maritime support.
- Act as airspace control authority (ACA), if so designated.
- Act as area air defense commander (AADC), if so designated.
- Coordinate combat search and rescue.
- Direct intratheater air mobility operations and coordinate them with intertheater air mobility operations.
- Conduct joint training, including the training, as directed, of components of other Services in joint operations for which the COMAFFOR has or may be assigned primary responsibility or for which the US Air Force component's facilities and capabilities are suitable.

THE JOINT FORCE AIR COMPONENT COMMANDER

The COMAFFOR, when designated as the JFACC, must be prepared to assume the following responsibilities, as assigned by the JFC:

- Organize a JFACC staff manned with personnel from each component to reflect the composition of aerospace capabilities and forces controlled by the JFACC.
- Develop a joint aerospace strategy and JAOP.
- Plan, coordinate, allocate, and task the joint aerospace capabilities and forces made available to the JFACC by direction of the JFC.
- Recommend apportionment to the JFC.
- Control execution of current joint aerospace operations to include:
 - Counterair, to include theater missile defense.
 - Strategic attack.
 - Counterland.
 - Countersea.
 - Counterspace.
 - Intratheater air mobility.
 - Counterinformation.
- Coordinate:
 - Combat search and rescue.
 - Intertheater air mobility support.

- SOF operations with the joint special operations task force (JSOTF) or joint force special operations component commander (JFSOCC).
- Perform combat assessment of joint aerospace operations at the operational and tactical levels.
- Serve as the airspace control authority (ACA), if so designated.
- Serve as the area air defense commander (AADC), if so designated.
- Serve as the supported commander for counterair operations, strategic attack, the JFC's overall air interdiction effort, and theater airborne reconnaissance and surveillance. As the supported commander, the JFACC has the authority to designate the target priority, effects, and timing of these operations and attack targets within land and naval AOs.
- Serve as the supporting commander, as directed by the JFC, for operations such as CAS, air interdiction within the land and naval component AOs, and maritime support.
- Provide integrated theater ISR for the JFC.

APPENDIX B

COMMAND ARRANGEMENTS AGREEMENT

BETWEEN

COMMANDER IN CHIEF, UNITED STATES CENTRAL COMMAND

AND

COMMANDER IN CHIEF, STRATEGIC AIR COMMAND

1. Authority and Reference:
 - a. SM-712-89, Unified Command Plan (UCP) (S), 1 October 1989.
 - b. SM-252-88, Joint Strategic Capabilities Plan (JSCP) (TS), 28 April 1988.
 - c. JCS Pub 1-02, DOD Dictionary of Military and Associated Terms (U), 1 June 1987.
 - d. JCS Pub 0-2, Unified Action Armed Forces (UNAAF) (U) w/change one, 1 December 1986.
2. Purpose and scope:
 - a. The purpose of this agreement is to establish procedures and delineate responsibilities between the Commander in Chief, Strategic Air Command (CINCSAC) and the Commander in Chief, U.S. Central Command (USCINCCENT) concerning Strategic Air Command (SAC) forces operating within the USCENTCO area of responsibility (AOR).
 - b. The geographic AOR for each combatant commander is as described in reference a, or as modified by the National Command Authorities (NCA) through the Chairman, Joint Chiefs of Staff (CJCS) for operational necessity.
3. It is agreed that:
 - a. With regard to SAC conventional-only bombers and Single Integrated Operations Plan (SIOP)-committed bombers tasked to provide conventional support in the USCINCCENT AOR:
 - (1) CINCSAC will retain combatant command (COCOM) and discharge Service responsibilities assigned by Chief of Staff, Air Force.

- (2) For JSCP apportioned, augmenting bomber forces, USCINCCENT will assume OPCON:
 - (a) When directed by the NCA.
 - (b) Upon execution of a coordinated and approved operations plan (OPLAN) or operations order (OPORD).
 - (c) For joint/combined exercises for training.
 - (3) USCINCCENT will normally delegate OPCON to the Commander, U.S. Central Command Air Forces (COMUSCENTAF).
 - (4) CINCENT will provide a Commander, Strategic Air Forces (COMSTRATFOR) and staff to USCINCCENT, capable of operational tasking for the USCINCCENT chain of command. This command element will normally be subordinate to COMUSCENTAF.
 - (5) OPCON of SIOP-committed bomber forces will revert to CINCSAC when directed by the NCA.
- b. With respect to tanker forces, reconnaissance, reconnaissance support, and other SAC assigned assets operating in the USCENCOM AOR but not specifically addressed in this agreement:
- (1) CINCSAC will retain OPCON and will operate in support of USCINCENT when appropriate or as directed by higher authority.
 - (2) CINCSAC will consider each support request submitted by USCINCCEN and determine the feasibility of providing support.
 - (3) If required, CINCSAC may direct that tactical control (TACON) be exercised through USCINCCENT chain of command.
- c. CINCSAC will coordinate OPLANS pertaining to operations in and through the USCENCOM AOR with USCINCCENT
4. Detailed command relationships are published in annex J of applicable OPLANS and OPORDS.
 5. SAC and CENTAF will discharge those functions and responsibilities specified in a Memorandum of Agreement (MOA) to be established between CINCSAC and CONUSCENTAF.
 6. With respect to liaison:

- a. Direct liaison between CINCSA and COMUSCENTAF is authorized for developing procedure necessary to implement operations in this agreement.
 - b. Direct liaison authority does not include tasking authority.
 - c. Subordinate commanders will be responsible for keeping their senior commanders informed.
 - d. CINCSAC liaison to USCENCOM and to COMUSCENTAF will be provided by Detachment 1, 8th Air Force.
 - e. Specific information on liaison authorities and responsibilities can be found in the MOA between Strategic Air Command and United States Central Command, (Annex A of this agreement).
7. (U) This agreement is effective upon signature. It may be revised or superseded by mutual agreement, or it may be rescinded by either combatant commander after providing ninety (90) days notice to CINC. One original of this agreement is held by each of the signatories.

Signed

JOHN T. CHAIN, JR.
General, USAF
Commander in Chief
Strategic Air Command

Date 27 October 1990

Signed

H. NORMAN SCHWARZKOPF
General, USA
Commander in Chief
U.S. Central Command

Date 24 November 1990

GLOSSARY

AAF	Army Air Force
ACC	Air Combat Command
ADCON	Administrative Control
ADVON	Advanced Operational Nucleus
AOC	Air Operations Center
AOR	Area of Responsibility
CAA	Command Arrangements Agreement
CBO	Combined Bomber Offensive
CCS	Combined Chiefs of Staff
CENTAF	Central Command Air Forces
CENTCOM	Central Command
CFACC	Combined Forces Air Component Commander
CHOP	Change Operational Control
CINCEUR	Commander in Chief European Command
CINCPAC	Commander in Chief, Pacific Command
CINCSAC	Commander in Chief, Strategic Air Command
COCOM	Combatant Command
COMAFFOR	Commander, Air Force Forces
COMUSAFE	Commander, United States Air Forces, Europe
DIRLAUTH	Direct Liaison Authority
ETO	European Theater of Operations
ETOUSA	European Theater of Operation United States Army
FEAF	Far East Air Forces
FOL	Forward Operation Location
GSTF	Global Strike Task Force
JFACC	Join Forces Air Component Commander
MACV	Military Assistance Command Vietnam
OPCON	Operational Control
PACAF	Pacific Air Forces
PTO	Pacific Theater of Operations
SAC	Strategic Air Command
SIOP	Single Integrated Operations Plan
TACON	Tactical Control
UCP	Unified Command Plan
USCENTCOM	United States Central Command
USEUCOM	United States European Command
USJFCOM	United States Joint Forces Command
USLANTCOM	United States Atlantic Command (also USACOM)
USPACOM	United States Pacific Command
USREDCOM	United States Readiness Command
USSPACESOM	United States Space Command
USSTAF	United States Strategic Air Forces
USSTRICOM	United States Strike Command
USTRANSCOM	United States Transportation Command

BIBLIOGRAPHY

- Air Combat Command. *Concept of Operations for Conventional Bomber Employment (Draft)*, 1 December 2001.
- Air Force Doctrine Document (AFDD) 2-0. *Organization and Employment of Aerospace Power*, 17 June 2000.
- Air Force Doctrine Document 2-1.2. *Strategic Attack*, 20 May 1988.
- Air Force Doctrine Document 2-2. *Space Operations*, 23 August 1998.
- Air Force Doctrine Document 2-6. *Air Mobility Operations*, 25 June 1999.
- Air Force Doctrine Document 2-8. *Command and Control*, 16 February 2001.
- Army Air Force Field Manual 100-20. *Command and Employment of Air Power*, 21 July 1941.
- Army Field Manual 110-5, Navy JAAF, and Air Force Manual 1-1. *Joint Actions Armed Forces*, 19 September 1951.
- Arnold, H. H. *Global Mission*. New York, N.Y.: Harper & Brothers, Publishers, 1949.
- Barry, John L., Brig. Gen., USAF, Who's in Charge? Service Administrative Control. *Airpower Journal*, Fall 1998, Vol. XII, No. 3, 31-37.
- Burke, Admiral Arleigh United States Chief of Naval Operations. Statement. In U.S. House. *Department of Defense Reorganization Act of 1958: Hearings Before the Committee on Armed Services United States Senate*, 85th Cong., 2d sess. on H.R. 12541, 1958.
- Chain, General John T. Commander, SAC. To General H. Norman Schwarzkopf, Commander, CENTCOM. Letter. Subject: Command Arrangement Agreement between Commander in Chief, United States Central Command and Commander in Chief, Strategic Air Command, 27 October 1990.
- Chain, John T General, USAF, Strategic Bombers in Conventional Warfare. *Strategic Review*, Spring 1988, 23-32.
- Cohen, Eliot A. et al. *Gulf War Air Power Survey*, Vol. 1, *Planning and Command and Control*. Washington D.C.: U.S. Government Printing Office, 1993.
- Cole, Ronald H. et al. *The History of the Unified Command Plan 1946-1993*. Washington D.C.: Joint History Office, 1995.
- Combatant Commands: Assigned Forces; Chain of Command*. U.S. Code. Vol. 4, Title 10, section 162a(4) (2001).
- Conduct of the Persian Gulf War, Final Report to Congress vol. 1*. Washington D.C.: Government Printing Office, April 1992.
- Coox, Alvin D. "Strategic Bombing in the Pacific 1942-1945." In *Case Studies in Strategic Bombardment*. Edited by R. Cargill Hall. Washington D.C.: U.S. Government Printing Office, 1998.
- Crane, Conrad C. *American Airpower Strategy in Korea 1950-1953* Lawrence, Kans.: University of Kansas Press, 2000.
- Crane, Conrad C. *Bombs, Cities, and Civilians: American Airpower Strategy in World War II*. Lawrence, Kans.: University of Kansas Press, 1993.
- Craven, Wesley Frank, and James Lea Cate eds. *The Army Air Forces In World War II*, Vol. 5, *The Pacific-Matterhorn to Nagasaki, June 1944-August 1945*. Chicago, Ill.: The University of Chicago Press, 1949.

- Craven, Wesley Frank, and James Lea Cate, eds. *The Army Air Forces In World War II, Vol. 1, Plans and Early Operations, January 1939 to August 1942*. Chicago, Ill.: The University of Chicago Press, 1948.
- Craven, Wesley Frank, and James Lea Cate, eds. *The Army Air Forces In World War II, Vol. 2, Europe: Torch to Pointblank, August 1942 to December 1943*. Chicago, Ill.: The University of Chicago Press, 1949.
- Craven, Wesley Frank, and James Lea Cate, eds. *The Army Air Forces In World War II, Vol. 3, Europe: Argument to V-E Day, January 1944 to May 1945*. Chicago, Ill.: The University of Chicago Press, 1951.
- Curtain, Brigadier General Gary L., Asst. DCS/Plans and Programs. To Rear Admiral Grant A. Sharp, Director, Plans and Policy, CENTCOM. Letter. Subject: Proposed Command Arrangements Agreement (CAA) between SAC and CENTCOM, 20 November 1989.
- Davis, Richard G. *Carl A. Spaatz and the Air War in Europe*. Washington, D.C.: Center for Air Force History, 1993.
- Defense Direction Commission on Roles and Missions of the Armed Force*. Department of Defense Report. Washington D.C.: Government Printing Office, 1995.
- Department of Defense Directive Number 5100.1. In *Department of Defense Documents on Establishment and Organization 1944-1978*. Edited by Alice C. Cole et al. Washington D.C.: Office of the Secretary of Defense Historical Office, 1978.
- Department of Defense Reorganization Act of 1958 – 6 August 1956 (72 Stat. 514). In *Department of Defense Documents on Establishment and Organization 1944-1978*. Edited by Alice C. Cole et al. Washington D.C.: Office of the Secretary of Defense Historical Office, 1978.
- Executive Order 9877. In *The United States Air Force Basic Documents on Roles and Missions*. Edited by Richard I. Wolf. Washington D.C.: Office of Air Force History, 1987.
- Executive Order 9950. In *The United States Air Force Basic Documents on Roles and Missions*. Edited by Richard I. Wolf. Washington D.C.: Office of Air Force History, 1987.
- Fitzhugh, Gilbert W. *Report to the President and the Secretary of Defense on the Department of Defense by the Blue Ribbon Defense Panel, 1 July 1970*. Washington D.C.: Government Printing Office, 1970.
- Futrell, Robert F. *The United States Air Force in Korea 1950-1953*. 1983. Reprint, Washington D.C.: United States Government Printing Office, 2000.
- Holley, I. B. *Ideas and Weapons*. 1953. Reprint, Washington D.C.: U.S. Government Printing Office, 1983.
- Joint Publication (JP) 0-2. *Unified Action Armed Forces*, 10 July 2001.
- Joint Publication 1-02. *Department of Defense Dictionary of Military and Associated Terms*, 12 April 2001.
- Joint Publication 3-56.1. *Command and Control for Joint Operations*, 14 November 1994.
- Jumper, John P. “Global Strike Task Force: A Transforming Concept, Forged by Experience.” *Aerospace Power Journal*, Spring 2001: 24-33.
- Kenney, George C., *General Kenney Reports: A History of the Pacific War*. New York, N.Y.: Duell, Sloan, and Pearce, 1949.

- Kohn, Richard H. *Strategic Air Warfare*. Washington D.C.: Office of Air Force History, 1984.
- Lambeth, Benjamin S. *NATO's Air War for Kosovo, A Strategic and Operational Assessment*. RAND Publishing, 2001.
- Lane, John, Jr., Lt. Colonel, *Command and Control and Communications Structures in Southeast Asia*. Maxwell Air Force Base, Ala.: Air University Press, 1981.
- Message. General Orders Number 30. Far East Air Force, Organization of Unit, 8 July 1950.
- Mets, David R. *Master of Airpower: General Carl A. Spaatz*. Novato, CA.: Presidio Press, 1988.
- Momyer, William W., General, USAF, Ret., *Air Power in Three Wars*. Washington D.C.: Government Printing Office, 1978.
- National Security Act of 1947-26 July 1947. In *Department of Defense Documents on Establishment and Organization 1944-1978*. Edited by Alice C. Cole et al. Washington D.C.: Office of the Secretary of Defense Historical Office, 1978.
- Nimitz, Chester W., Fleet Admiral. Statement. In U.S. House. *National Security Act of 1947: Hearings before the Committee on Expenditures in the Executive Departments*. 8th Cong., 1st sess., 1947. HR 2319.
- O'lier, Franklin D. et al. *The United States Strategic Bombing Survey Summary Report (Pacific War)*. Washington D.C.: United States Government Printing Office, 1946.
- Packard, David et al. *Interim Report to the President*. President's Blue Ribbon Commission on Defense Management. Washington D.C.: Government Printing Office, February 28, 1986.
- Patterson, Robert P., Secretary of War. Statement. In U.S. House. *National Security Act of 1947: Hearings before the Committee on Expenditures in the Executive Departments*. 8th Cong., 1st sess., 1947. HR 2319.
- Potter, E. B. *Nimitz*. Annapolis, Md.: Naval Institute Press, 1976.
- Stratemeyer, George E., Lt. General, *The Three Wars of Lt. Gen. George E. Stratemeyer, His Korean War Diary*. Edited by William T. Y'Blood. Washington D.C.: United States Government Printing Office, 1999.
- Thompson, Wayne *To Hanoi and Back, The U.S. Air Force and North Vietnam, 1966-1973*. Washington D.C.: Smithsonian Institution Press, 2000.
- Trest, Warren A. *USAF SAC Operations in Support of SEASIA (U)*, Project CHECO Southeast Asia Report. HQ PACAF, Directorate, Tactical Evaluation, 17 December 1969.
- Truman's Message to the Congress-19 December 1945. *Department of Defense Documents on Establishment and Organization 1944-1978*. Edited by Alice C. Cole et al. Washington D.C.: Office of the Secretary of Defense Historical Office, 1978.
- U.S. House Committee on Armed Services. *Report on Bill Nichols Department of Defense Reorganization Act of 1986 on H.R. 4370*. 99th Cong., 2d sess., 21 July 1986.
- U.S. Senate Committee on Armed Services United States. *Department of Defense Reorganization Act of 1986*. 99th Cong., 2d sess., 1986.

Werrell, Kenneth P. *Blankets of Fire*. Washington D.C. and London: Smithsonian Institute Press, 1996.

Electronic Publications

“About U.S. Joint Forces Command.” On-line. Internet, 3 May 2002. Available from <http://www.jfcom.mil/main/About/History/ABTHIST4.HTM>.

Aerospace Commander’s Handbook for the JFACC. Air Force Doctrine Center, 27 June 2001. *Aerospace Commander’s Handbook for the JFACC*. “ACH/JFACC.” CD-ROM. HQ Air Force Doctrine Center, 1 November 2001.

“Air Combat Command History.” On-line. Internet, 3 May 2002. Available from <http://www2.acc.af.mil/library/history/>.

Brunner, Borgna. “Where in the World is Diego Garcia.” On-line. Internet, 28 May 2002. Available from <http://www.infoplease.com/spot/dg/html>.

Doctrine Watch #3: Operational Control (OPCON), Air Force Doctrine Center, 4 November 1999. *Aerospace Commander’s Handbook for the JFACC*. “Other Readings.” CD-ROM. HQ Air Force Doctrine Center, 16 April 2001.

Rumsfeld, Donald H., Secretary of Defense, and Richard Myers, Chairman of the Joint Chiefs of Staff. “Special Briefing on the Unified Command Plan.” Address, Pentagon, Washington D.C., 17 April 2002. On-line. Internet, 31 May 2002. Available from http://www.defenselink.mil/news/Apr2002/t04172002_t0417sd.html.

“Unified Combatant Commands.” On-line. Internet, 18 February 2002. Available from http://www.defenselink.mil/pubs/almanac/organization/Combatant_Commands.html.

“United States Joint Forces Command.” On-line. Internet, 2 May 2002. Available from <http://www.jfcom.mil/main/About/about2.htm>.